



Frontispiece. *Korean onggi peddlers, ca. 1900.* (Courtesy Library of Congress, Carpenter Collection no. 25259.)

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The Korean Onggi Potter

Robert Sayers

with Ralph Rinzler

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Abstract

Sayers, Robert. The Korean *Onggi* Potter. *Smithsonian Folklife Studies*, number 5, 292 pages, frontispiece plus 117 figures, 1987.—Korea's *onggi* potters, producers of a class of domestic food jars used to prepare and store soy sauce, *kimch'i*, and other diet staples, work even yet in circumstances reminiscent of those prevailing during the Yi dynasty (1392–1910). Not only their repertoire of tools and techniques but the very conditions by which they live and organize themselves into work groups mirror those described in nineteenth century accounts. In this study, we consider the history of the *onggi* industry, exploring a link between the artisans and a community of religious dissenters driven into hiding nearly 200 years ago. We also discuss the extant ware forms and their practical uses and report on the state of the contemporary industry as indicated in field survey data collected at 11 workshops in six South Korean provinces. A bibliography of Korean, Japanese, and Western language sources on *onggi* accompanies the text.

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Preface to the Series

In 1978, the Smithsonian Office of Folklife Programs established *Smithsonian Folklife Studies* to document folkways still practiced (or recreated through memory) in a variety of traditional cultures. This Office has accumulated more than a decade of research accruing from fieldwork conducted for its annual production of the Festival of American Folklife. Against the background of this rich and continually replenished resource, the *Studies* were conceived in a unique format: each consists of a monograph *and* a film that complement each other. The monographs present detailed histories and descriptions of folk technologies, customs, or events, and include information about the background and character of the participants and processes through photographs (historical and contemporary), illustrations, and bibliographies. The films add a living dimension to the monographs by showing events in progress and traditions being practiced, the narrative being provided mostly by the tradition bearers themselves. Thus, while each monograph is planned to permit its use independent of the film (and vice versa), their combined study should enhance the educational and documentary value of each.

The genesis of the *Smithsonian Folklife Studies* dates back to January 1967, when the Institution began plans to convene a group of cultural geographers, architectural historians, and European and American folklore scholars in July of that year. One recommendation of the conference stressed the need for new directions in documentation to keep pace with the ever-broadening scope of the discipline, as it extends from the once limited area of pure *folklore* research to encompass all aspects of *folklife*. It was further proposed that the Smithsonian establish model folklife studies, although no specific forms were prescribed. The Festival was one form developed to meet this challenge and the publications program was another. *Smithsonian Folklife Studies* were designed to provide new perspectives on earlier research or to investigate areas of folklife previously unexplored.

The topics proposed for the publications range widely from such traditional folklore interests as ballad singing to newer areas of con-

cern such as occupational folklore. Included are studies of "old ways" in music, crafts, and food preparation still practiced in ethnic communities of the New World, centuries-old technologies still remembered by American Indians, and "homemade" utilitarian items still preferred to their "store bought" counterparts. American folklife is the primary (but not exclusive) concentration of the *Studies*.

Nearly all of these traditions have been transmitted orally or absorbed through repeated observation, involving several generations. Learning traditions this way, of course, extends beyond childhood. The degree to which oral, even non-verbal, tradition operates, among blue collar workers, is one focus of occupational folklore: imitation and personal instruction are the best vehicles for transmitting the technique and knowledge necessary to do the work. Because mere words cannot always communicate, apprentices must be *shown* the technique.

Many of the activities documented in the *Studies*, however, are practiced in a world apart from that of the factory. By modern standards of mass production, the technologies shown may seem inefficient and imprecise. In some of them the proportions used, arrived at through years of trial and error, are often inexact or employ measuring tools no more precise than the dimensions of the human hand. It is also a world where the craftsman eschews technical terminology, preferring instead to employ names that derive from "what it looks like." Many of the traditions presented in the *Studies* date back to times when the pace of work and passage of time were relatively unimportant. Deliberateness is often commensurate with accomplishment, and, for the folk craftsman, quality of his products is a result of the care and time devoted to their manufacture.

The decline of many folklife traditions has paralleled the general social breakdown of communities, in many instances the result of advances in technology. Concurrent with this social dissolution has been the disappearance of many utilitarian items that the maker traditionally created for himself or his family. Many of the traditions associated with these products are near extinction or alive only in the memories of the oldest members of a community.

Because a major role of the Smithsonian is that of a conservation institution, the Office of Folklife Programs accepted the obligation to document the traditional folkways it researches, and its early commitment to filming them should be noted. During the 1967 Smithsonian conference, roughly edited film footage of Georgia folk potters was

shown to demonstrate a new approach in describing the technology behind artifacts in the Smithsonian's collection of folk material culture. After final editing was done and a soundtrack and supplementary footage were added, this film was issued as *Smithsonian Folklife Study*, No. 1a, to accompany the monograph titled "The Meaders Family: North Georgia Potters." The initial screening of this pottery film took place at a time when film documentation of folklife was a novelty. In fact, in 1967 the *American Encyclopedia Cinematographica* listed a silent film on Amish breadmaking as its single motion picture entry in the category of American folk culture. This dearth of folklife films reflected the fact that, for the most part, folklorists were continuing to document the artifact more than the craftsman.

Folklorists have not been alone, however, in being late to recognize film documentation as a necessary adjunct to verbal descriptions of culture. The late anthropologist, Margaret Mead, whose efforts helped to establish the Smithsonian's National Anthropological Film Center in 1975, took to task her own discipline's continuing refusal to appreciate the value of film documentation:

Department after department, research project after research project fails to include filming and insists on continuing the hopelessly inadequate note-taking of an earlier age; while before the fieldworkers' eyes the behavior [disappears] which film could have caught and preserved for centuries (preserved for the joy of the descendants of those who dance a ritual for the last time and for the illumination of future generations of human scientists)

—Margaret Mead, [Introduction] "Visual Anthropology in a Discipline of Words," in *Principles of Visual Anthropology*, ed. Paul Hockings, The Hague and Paris: Mouton Publishers, 1975, pp. 4–5.

In expanding our study of folklife beyond mere artifacts and texts, we have come to recognize that much of what we witness is performance. And though performance can be described verbally or transcribed in print, only through sound motion picture can we hope to capture the complete flow of events, the character of their performers, their speech patterns, moods, and personalities. Hence, by incor-

porating artifact, text, and performance in the complementary monograph/film format, these publications bring to readers and viewers, respectively, the immediacy and subtlety within folk culture. The Smithsonian's aim is to document folklife in all its dimensions.

A list of the monographs and films that have been issued in the *Smithsonian Folklife Series* appears at the end of this volume. Regulations governing the submission and acceptance of manuscripts are described inside the front and back covers of this monograph.

Thomas Vennum, Jr.
General Editor
Office of Folklife Programs
July 1984

Acknowledgments

Fieldwork for this project was initiated by Ralph Rinzler in 1971 and 1972, with assistance from Emille Museum Director Zozayong (Cho Cha-yong), from businessman and *onggi* enthusiast Roger I. Eddy, and from Thano Johnson, a ceramics professor at the College of Marin in northern California. In 1981, Rinzler and Sayers benefited once again by the enthusiastic support of Zozayong, Korea's premier folk art scholar and collector. We were assisted as well by historian Yun Yeol-su, whose good humor and unusually broad knowledge of Korean traditional culture proved of inestimable value in the field, and by Kim Young-pil ("Phil"), whose bilingual abilities and great rapport eased our entry into the potters' communities.

Robert Sayers relied greatly on the expertise of several prominent Asianists while he was assembling the manuscript. He is most deeply indebted to Chang-su Houchins of the Department of Anthropology, Smithsonian Institution, and to Kim Joohee of Sungshin Women's University, Seoul, both of whom spent long hours reviewing our detailed and often confusing interview transcripts and other source materials. Without their selfless commitment of time and their willingness to reply to countless letters and telephone inquiries, the project would have been greatly handicapped.

Louise Allison Cort of the Freer Gallery and Robert E. Buswell, Jr., of the University of California, Los Angeles, provided translations of critical Japanese and Korean language materials on *onggi* (collected in the main by Yun Yeol-su); Louise Cort, a specialist in the area of Asian ceramics, also made a significant editorial contribution to the final text. Special thanks are also extended to John W. Hosterman, a scientist with the U.S. Geological Survey in Reston, Virginia, who generously volunteered to analyze clay samples brought back from the field.

Other individuals who are deserving of acknowledgment for contributions large and small (and who are not already cited in Ralph Rinzler's Introduction) include Joan Bacharach (Washington, D.C.), Patricia Berger and Yoshiko Kakudo (Asian Art Museum of San

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Finally, our principal acknowledgment must go to the factory owners and potters in South Korea who repeatedly took time from their chores to answer our many questions. It is hoped that this monograph, by bringing their history and their work to a larger public, will benefit them in important ways.

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Introduction

The field survey that led to Robert Sayers's research and preparation of this study began in October 1971, shortly after my wife and I arrived in "Du-Gil," a rice-growing village near Oryu-dong, Yŏng-dŭngp'o, South Korea, where we had traveled to work with a school for orphan girls. On the way from the airport to the village, my gaze picked out a significant *leitmotif* on the landscape: large, handsomely shaped ceramic vessels, full and rounded in form, ranging from one to three feet tall and covered with lids that looked like big inverted platters. In rural areas, these stood next to every dwelling we passed on the highway; in congested communities, they were arrayed on apartment-house roofs. As soon as we arrived at the school, I saw a cluster of these pots on top of a flat-roofed out-building and learned that the pots were as common in Korea as refrigerators are in the United States, serving as the storage vessels for condiments and sauces that accompany every meal consumed in the Korean household. Having already studied the equivalent tradition in rural America,¹ I decided to learn more about the forms, glazes, production methods, and makers of this exceptionally appealing Korean traditional ware.

We had taken portable video equipment with us, to document the innovative educational methods newly instituted by a California-based scholar-cum-educator, Dr. Lola Hanson, at her mother's village mission school. Mrs. Hanson's son, Kim, agreed to use our equipment to videotape the technology behind the production of these pots as a step towards learning more about the function, meaning and value of the vessels in contemporary Korean life. By asking a few questions of a pottery purveyor at our local open-air food market in Oryu-dong, I learned of the nearest kilnsites. I was able to visit them within a few days to photograph the workers and observe the full range of clay processing, forming, glazing and firing operations in a largely but not completely mechanized production center.

Wherever I enquired about *onggi*, my interest elicited embarrassment, smiles, mild surprise; nonetheless, I persisted. My next step was

to locate a young anthropology student, Mr. Kim, willing to work with me as interpreter. Together we developed an interview format to obtain basic information about the following:

1. Technology, glaze formulae and pot forms.
2. Function of each form made.
3. Economics of the operation.
4. Training techniques.
5. Status of the workers and owners of the kilnsites.
6. History of each kilnsite.
7. Potters' sense of identity as craftsmen.

A colleague at the American Embassy introduced me to Roger Eddy, a retired military man, who headed his own construction and management consulting firm and who had a vigorous interest in *onggi* ware and the traditions behind it. Eddy had taken thousands of still photographs at kilnsites throughout South Korea, which he generously showed me. He also assisted me in visiting several kilnsites, where we interviewed the potters and owners, video-taping the work processes as well.

Having gone to Korea without any thought of pursuing this kind of project during the visit, I was totally unprepared for the task, but curiosity replaced prior knowledge as an incentive. I learned from Roger Eddy that there was nothing in English on the tradition; lacking reference material to fall back on, we learned by asking as we went along in the field.

I began by visiting Dr. Kim Wan Yong, Director of the National Museum at Tōksu Palace in Seoul. He was polite but amused and a bit baffled as to why I would seek information about *onggi*. He seemed incredulous when I said that, as nothing was available in English on the subject, I might consider preparing for publication a short monograph on the ware, its history, and the production traditions.

Once in the field, with Mr. Kim as interpreter, it was clear to me that there were problems interviewing workers, but I could not determine why I was unable to transcend a barrier I felt existed between me and the pottery workers. Another year would pass before I began to arrive at my understanding of that problem.

During my three-week stay, Kim Hanson, Mr. Kim, and I worked at video-taping and shooting still photographs interviewing as best possible, both on-camera and with a cassette tape recorder. Finally, as I was leaving to return to the United States, I learned of Mr. Zozayong (Cho Cha-yong), an architect, art collector, and owner of a museum

of folk painting. I could not see him before leaving, but my wife and Mrs. Hanson managed to visit his museum, and within six months Zozayong's daughter, Margaret, was part of our household for a long-term visit. During her stay, I began to understand why communication with the potters had been so difficult, but it was not until I benefited from her father's collaboration in the field that I fully understood the earlier problems.

In October 1972, I returned to Korea to follow up on the work I hastily had begun a year earlier. We could not have effectively continued with this project had not Zozayong contributed his considerable skills, time, and resources to the task. Thano Johnson, an accomplished potter and teacher, framed questions about technical matters, while I developed an appropriate format for general ethnographic documentation. As a first step, Zozayong brought us together with a group of his colleagues from the Emille Museum, which he designed and built to house his collection of Korean folk painting. The occasion was a meeting of his newly formed "Folkist Society"—an informal organization of Korean and American colleagues concerned with the collection and study of the artifacts of Korean folk culture—and we took the opportunity to discuss our fieldwork plans with the group. Shortly thereafter, Zozayong, an old friend of his, Kim Chun Bae, who served as our interpreter, Thano, and I left for a two-week field survey of South Korean potteries.²

The itinerary was designed by Zozayong and negotiated with me as we traveled. Essentially, it was based on his interpretation of our field plans from the Folkist Society discussion. Added to this were the imperatives imposed by the geographical distribution of Zozayong's friends who were collectors of folk painting and with whom he had museum business to transact. Development in 1972 in South Korea was such that, once we left Inch'ön, the highways connecting all major cities became dirt roads; pavements were to be found only in the cities and towns themselves. The method we devised for locating working kilnsites involved, on entering a town, finding the open market wherein a pottery vendor's stall could be found, and asking the vendor about the source of his ware. This question was posed only after we had had an opportunity to inspect the ware and to determine what kinds of forms, glazes, and decorations were different from what we had seen in other regions. We then decided on a kilnsite to be visited, based on the most regionally distinctive ware represented in the market. Occasionally we would visit several kilnsites in a region when,

as was frequently the case, they were clustered within the space of a few miles.

After each kilnsite was targeted, Zozayong would either go off himself or send the driver on a short mission. As a result, we always arrived at the potteryworks with a supply of rice biscuits and *makkōlli* (strong rice wine). Unlike my initial field experience at the potteries, Zozayong approached the pottery owners and their workers as he would people from whom he sought to purchase folk paintings. His skill in establishing rapport was unparalleled. First, we ate and drank with the workers, sitting for a long while talking and joking as well as explaining the purpose of our visit, gently and indirectly.

I soon understood that the potters were, for the most part, itinerant workers with little or no status or security. They lived in "company housing," with a primitive kitchen facility shared among several families. The owners of the potteries were most frequently businessmen; only occasionally did we encounter one who was himself a turner. Women and children helped with clay processing at some worksites, but they never worked at the wheel turning ware. That the potters were of low status and their ware considered to be of no esthetic or cultural value to Koreans at the time explains the astonishment of museum personnel and Korean friends when they learned that I was interested in writing about these craftsmen and their humble produce.

Without a carefully conceived, determined approach, the barrier between visiting foreigners and well-clad, upper-class Koreans, on the one hand, and pottery workers on the other was impenetrable. Our success in transcending obstacles and learning from these skilled and creative craftsmen can be attributed to the gregarious and sensitive leader of the expedition, Zozayong. His charm, intellectual involvement, and dedication to the endeavor were decisive factors in our ability to gather a large body of detailed technological, historical, and personal data from the workers and owners.

After completion of the 1972 work in Korea, Thano Johnson and I stopped in Japan, where we visited Mashiko and interviewed Hamada Shoji, with whom Thano had studied many years earlier. Hamada clearly understood and identified with our interest in the skills of Korean potters whom he had observed in the 1920s, both in Korea and as "indentured" workers brought to serve at kilnsites throughout Japan. Hamada's shared insights and experiences were drawn from his collaboration with Yanagi Sōetsu and Bernard Leach in the crafts

movement in Japan and abroad. He also enabled us to understand that it was only a matter of time before economic development in Korea would change the prevailing attitudes about *onggi* and its highly skilled and creative makers.

When I returned to Korea in 1981 with Robert Sayers, almost all of the Seoul I had known in the 1970s had given way to an urban style reminiscent of Los Angeles and Tokyo. Forty minutes south of downtown Seoul was a commercially operated "Korean Folk Village," a multi-acre park with several dozen examples of traditional, regional house-types, each documented, furnished, and decorated in the style of the region from which it had been moved. Each had its array of *onggi* in the kitchen and at the well-site. In fact, *onggi* was everywhere to be seen. We learned that it was now recognized as a respected, surviving symbol of an earlier, culturally significant life-style. Zoza-yong acknowledged that collectors sought out the older, larger, grain-storage vessels, highly prized for their extraordinary size, graceful form, and lead-free, matte, slip glazes.

What I had learned from Hamada vis-à-vis Japan a decade earlier proved to be applicable to Korea and is now understood to be a global phenomenon: as "the technological destruction of distance that characterizes our epoch is rapidly tending to fuse all of the metropolises of the world into instances of a single type,"³ we see that people have come to value objects and expressive cultural traditions that evoke the rich and comforting cultural distinctiveness of an earlier period. The current interest in antique furnishings, folk cultures, and older architectural structures speaks to the fear that, "if we do not learn how to counter the homogenizing impact of the mass media on our cultural environment, there will be no reason to travel . . . and none to stay at home."⁴

Onggi, its history, and the creativity characteristic of its makers now enjoy national recognition in Korea as significant aspects of its cultural history.

Ralph Rinzler
Smithsonian Institution
June, 1986

The Onggi Potter

Of all classes of Korean ceramics, none is more agreeably suited to observation and study—and none presumably has deeper roots in Korean history and culture—than the foodware known as *onggi*. Until recently, virtually every household in the Republic of Korea, rich and poor, retained at least a few pieces of this ware for the storage of soy sauce, pickled vegetables, and other foodstuffs (Figure 1); and yet, because *onggi* has never been judged the aesthetic equivalent of the so-called “classical” ceramics—the Yi dynasty white porcelains and the elegant gray-green celadons of the preceding Koryŏ period—our understanding of the ware and its makers has been greatly handicapped.

Today many Koreans profess not to know the origin of such jars. The immediate source of the ware, people will acknowledge, is the vendor in the marketplace. Beyond this, little is known. What is left in the public consciousness is a very curious, sometimes ribald folklore.¹ Preserved in oral tradition, for example, are tales of criminals and other fugitives hiding in the jars, peasants living in them—even lovers using them as a rendezvous spot. Whether one chooses to believe these stories is a matter of faith. Indeed, where folklore merges with history cannot be demonstrated at the present time, because the oral literature is as ephemeral as it is ubiquitous.

If *onggi* has long been neglected, a change appears imminent. We now know where the jars originate and who makes them. It is, in fact, especially ironic that a visitor to a famous celadon revival workshop southeast of Seoul will almost certainly overlook surrounding ceramics factories that connect in vastly more important ways with the social and economic fabric of feudal Korea. What ultimately emerges then is an uncommonly interesting account of a “catacomb” community of highly skilled artisans who work today in circumstances clearly reminiscent of a much earlier period and whose complicated motor skills are entirely unfamiliar to studio potters in the West.



Figure 1. *Detail of eight-panel screen entitled "A Pictorial Biography of Hong Yi-sang."* Executed in 1781 by Kim Hong-do (Tanwŏn), this is one of the earliest painted representations of domestic food jars. (Courtesy National Museum of Korea, Seoul. Photo by Jim Patton.)

Early Descriptions of the Potters and the Ware

Tracing the antiquity of *onggi* is difficult for reasons just cited. Crude ceramic foodwares are undeniably present in the archaeological record, although a formal chronology for these vessels is lacking (Figure 2). Citing morphological similarities between *onggi* and the unglazed earthenware forms of the Silla dynasty (A.D. 668–918), many scholars simply accept a long ancestry for the ware.² It should be cautioned, however, that the particular versions known today may derive from an economic revolution that, during the eighteenth and nineteenth



Figure 2. *Antique food jar at Chōnju City Museum. Attributed to Koryō dynasty (A.D. 918–1392). (Photo by Ralph Rinzler, 1981.)*

centuries, brought many items of material culture for the first time into the homes of the masses.

A Korean intellectual, Sō Yu-gu (1764–1845), addressed the issue of origins 150 years ago. In Sō's encyclopedic *Imwōn kyōngje simnyuk chi* (Sixteen Discourses on Rural Economy) published in 1834, the term *ong* is broadly defined as "the largest of earthenware vessels, the most necessary for everyday use," a type of jar employed mainly for holding cereal liquors and soy sauce.³ Such vessels in Sō's time ranged in capacity from a minimum of 15–16 *tu* up to 40–50 *tu* (one *tu* is a standard grain measure equivalent to about 1.5 liters). Referring to the Chinese logograph for *ong*, Sō entertained the possibility that it (and its synonym *yong*) might have referred originally to smaller hand-held "water drawing" containers and cited literary sources of the Qin (Ch'in) and Han periods (221 B.C.–A.D. 220) to support this position. In a later Chinese text, *Qimin yaoshu* (*Ch'i-min yao-shu*, Essential Techniques of the Masses), however, Sō discovered that *ong* also encompassed large distillery vats. Consequently he asked if the term might not be taken as a general designation for a wide range of similar ceramic vessels.⁴

Etymological concerns aside, Sō offers some practical advice on the uses and maintenance of *ong*. During the summer months, a jar's mouth should be sealed against insect invasion with a wooden lid (which is to be aired from time to time in the sun), then covered with a rain screen of lacquered or oiled paper and broad bamboo leaves. In the freezing winter, vessels should be buried in the ground for insulation and blanketed with a thick woven mat of rice stalks.⁵

On the selection of a suitable *ong*, the author quotes from *Qimin yaoshu*: "*Ong* which have been fired during the seventh lunar month are the best; the next best are those fired during the eighth lunar month . . . Those which have been sealed with hot fat upon removal from the kiln are of the highest quality."⁶ A corresponding excerpt from a second text, *Jinhua gengdu ji* (*Chin-hua keng-tu chi*), prescribes the following: "Whether one is buying an old or a new *ong*, it should first be inspected for imperfections. Sweep the ground and make it level. Burn fagots on the ground, then smother the flame. Position the *ong* [upside down on the smoldering fire] and pile earth around its mouth to completely enclose it . . . Examine carefully the entire jar; if smoke escapes anywhere, then cracks are indicated."⁷

The practice of sealing jars with animal fat seems not to have survived to the modern period. It is conceivable that storage vessels of Sō's era were lacking in glazes, a possibility that has been broached

in other sources. Adding to such speculation, the author contrasts the ordinary types of *ong* with an “outstanding” southern ware, white-slipped and decorated with iron oxide (*sōkkan chu*, literally, “between-the-rock-red”).⁸ In any event, this apparently obsolete procedure is described at some length: “All *ong*, whether large or small, should be sealed before use. Dig a small pit in the ground and in it start a charcoal fire. Place the jar over the pit sealing any openings, and allow it to heat up. Once the jar is warm to the touch, smear the inside with hot animal fat. Accomplishing this, the jar should be washed out with a few *tu* of hot water, then filled with cold water. A few days thereafter it is ready for use.”⁹

Concerning the producers of food storage ware, Sō Yu-gu divulges little except to note that “the pottery studios generally establish their kilns in the pine forests” and that “traders carry [the jars] out on their backs and sell them in the countryside.”¹⁰ Indeed, what we know of the industry’s history and salient characteristics is preserved mainly in Western sources. The following description of the ceramic workers (and their kindred metalsmiths), for example, is taken from the correspondence of French Jesuits working clandestinely on the Korean peninsula after 1836.

Potters . . . nowadays settle in a place where wood and clay are abundant, build their hut and their kiln, make a few rather coarse porcelain pieces and earthenware vases which are quite solid and sometimes of a monstrous capacity for the people of the vicinity, and then when the wood is exhausted go and seek their fortune elsewhere. Smiths act in the same way, and depart when the extraction of ore becomes too difficult. Thus there are never any big factories, no serious exploitations, nor any workshops which merit the name. There are shanties of ill-joined planks easily carried off by the wind or beaten in by the rain, kilns and ovens without any solidity which crack at each instant, and that is all. Consequently, profit is practically nil. Individuals who have money scarcely dream of investing it in such enterprises, and of those who do try to tempt fortune with a few hundred francs, half go bankrupt in a matter of months.¹¹

In May of 1882, Commodore Robert W. Shufeldt, acting on behalf of the United States government, concluded a Treaty of Amity and Commerce with officials of the former “Hermit Kingdom.”¹² With

the creation of trade and intercourse between Korea and the nations of the West, the peninsula experienced a modest influx of foreign visitors. Spencer F. Baird, then Secretary of the United States National Museum (Smithsonian Institution), found scientific opportunities presented by this turn of events irresistible and soon dispatched fieldworkers to map the area and to collect ethnological as well as floral and faunal specimens. One of these fieldworkers, an ornithologist named Pierre Louis Jouy, put aside his avian studies long enough to file this report on the native potter's wheel:

The Korean potter's wheel consists of a circular table from two to three feet in diameter and four to six inches thick, made of heavy wood so as to aid in giving impetus to it when revolving. In general appearance it is not very unlike a modeller's table. This arrangement is sunken into a depression in the ground, and revolves easily by means of small wheels working on a track underneath, the table being pivoted in the centre. The wheel is operated directly by the foot, without the aid of a treadle of any kind. The potter sits squatting in front of the wheel, his bench or seat on a level with it, and space being left between his seat and the wheel to facilitate his movements. With his left foot underneath him, he extends his right foot, and strikes the side of the wheel with the bare sole of the foot, causing it to revolve.¹³

Curious details (the "small wheels working on a track underneath") cast some doubt on the accuracy of Jouy's account, suggesting perhaps that he did not actually view the wheel's undercarriage. This does not, of course, rule out the possibility that what he chanced to observe was a fairly sophisticated instrument of unknown variety (Figure 3).¹⁴ In any event, Jouy, during his extended stay in Korea between 1883 and 1885, also assembled sufficient materials to permit a useful commentary on the several classes of Korean ceramics: "The pottery in common use in Korea at the present time consists of three kinds; the finest of white, pale buff, or bluish, porcelain sometimes decorated in blue and with a high glaze, is used for the table, and consists of dishes, bowls, and bottles, also wash basins; the second quality is a pale yellow ware, glazed, mostly made into bowls, undecorated, and used by the poorer classes. It is very similar to the common kitchen ware in use all over the world in civilized as well as



Figure 3. "Tok Maker" by Kisan, ca. 1886. The wheel in this painting (one of 98 scenes of Korean domestic life commissioned by Commodore Shufeldt's niece, Mary) is more closely akin to a porcelain maker's wheel than it is to the sunken contrivance used by onggi potters. The latter is typically recessed into the workroom floor, allowing the potter to stand during the making of very large jars (tok). A charcoal heater suspended from the ceiling (note rope trailing into jar) dries the vessel as the potter works. (Courtesy National Anthropological Archives, Smithsonian Institution, NAA no. 211195.)

barbarous kitchens." Concerning storage and allied wares, Jouy adds:

The third style of pottery is of the commonest kind, made of dark brown, or reddish earth, is glazed inside and out, and has little or no decoration except a wavy line produced by wiping off the glaze, leaving the lighter under surface to show through. Some pieces have their edges scalloped or fluted and are adorned with incised lines, but generally they are quite plain and without these ornamentations. This ware . . . is used mainly for oil and water jars and for the common bowls and dishes of the Korean kitchen. House tiles are also made of this clay.

The most ambitious specimens of this latter ware I have seen are the water jars, huge vessels suggesting possibilities of concealment as great as the famous jars in the Arabian tale; these are often greater in capacity than an ordinary barrel. There are generally at least two of these huge receptacles placed just outside of the kitchen door. Another curious form is a kind of oven consisting of a shallow vessel with a cover and raised some 8 or 10 inches from the ground on three legs, the whole being made of pottery.¹⁵

In addition to Jouy's work, a small but important body of useful information can be abstracted from the assorted writings of Western diplomats, missionaries, and travelers in Korea between 1882 and 1910. George W. Gilmore, an American teacher at the Royal College in Seoul from 1886 to 1889, for example, noted with regret that most of the finer ceramics of the period were imported from Japan but added that "useful articles of pottery of the coarser grades are made in abundance, and in the making of tiles, of pipes for conduits and of earthenware jars of various sizes Koreans are still adepts."¹⁶ Then there is this from William R. Carles, British Vice-Consul to Korea in 1884 and 1885, regarding a kiln site near the far northern town of Wiwŏn: "A small industry exists . . . in the manufacture of the large earthen pots used for holding water. These are baked in ovens of hard beaten clay, sometimes 50 yards long, and with a slope of 30°, for which reason they are generally built on the side of a hill, the mouth being situated at the bottom."¹⁷

Somewhat lengthier descriptions of the industry are included in the travel accounts of Isabella Bird Bishop, a fellow of the Royal

Geographic Society, who explored parts of China and Korea between 1894 and 1897 and J. Robert Moose, a medical missionary in the latter country after 1899. During one excursion along the upper reaches of the Han River from Seoul, Bishop occasioned to inspect some of the dwellings of the peasant farmers wherein she discovered "*ang-pak*, great earthenware jars big enough to contain a man, in which rice, millet, barley, and water are kept."¹⁸ These, the author noted parenthetically, were obtained from two villages within 40 *li* (16 kilometers) of the capital, which also supplied "culinary utensils of the same coarse ware, which stand fire and serve instead of iron pots."¹⁹ At length, Bishop visited a ceramics workshop along the southern branch of the Han north of Yöju.

At the village of Tomak-na-dali, where we tied up, they make the great purple-black jars and pots which are in universal use. Their method is primitive. They had no objection to be [sic] watched, and were quite communicative. The potters pursue their trade in open sheds, digging up the clay close by. The stock-in-trade is a pit in which an uncouth potter's wheel revolves, the base of which is turned by the feet of a man who sits on the edge of the hole. A wooden spatula, a mason's wooden trowel, a curved stick, and a piece of rough rag are the tools, efficient for the purpose.²⁰

J. Robert Moose's subsequent description of a Korean potters' workshop is no less informative than Bishop's.

In the potter's house the wheel is to be seen, just as it was in the days of Jeremiah. I doubt that it has been changed in the least from that day to this. It is made of a piece of a log the end of which is smoothed so that it has a surface of about eighteen inches in diameter at both ends. The middle is cut away, so that when finished it has very much the appearance of a large spool from which the thread has been taken. This is placed in a hole in the ground so that it will easily revolve on a pivot in the lower end; at the same time the upper end comes a little above the ground which forms the shop floor. The operator sits on the ground with his feet on the lower end of the wheel, revolving it rapidly or

slowly as he likes, while the vessel is being formed from the lump of clay which has been placed on the top of the wheel.²¹

Moose continues: "After the pots and jars leave the wheel, they are dried in the sunshine and then placed in a kiln, where they are baked till hard. The best quality are glazed, though many of them are left unglazed." Finally, concerning the uses to which these vessels were put, he adds: "Our village people use many sorts of this pottery, varying in size from a jar which holds forty gallons to a small bowl which is used on the table. These earthen jars are much used about every house; they take the place of buckets in other countries. They are used for storing grain and all sorts of supplies that must be kept about the place."²²

Fortunately, these authors did not confine their observations to the workplace, but provide lively descriptions as well of the Korean market wherein the ware was traded and sold. In Seoul, Bishop details a scene of open stalls, serving as both habitations and places of business, with their vast arrays of cloth goods, hats, footwear, smoking paraphernalia, toilet articles, jewelry, furniture, brass dinner sets, food-stuffs, "coarse glazed pottery," and "ill-chosen collections of the most trumpery of foreign trash, such as sixpenny kerosene lamps, hand mirrors, tinsel vases, etc"²³ Similar assemblages of goods were also discovered in the countryside, although in lesser quantities and in more impermanent circumstances. The institution of commerce in these areas, in Bishop's telling, was the periodic farmers' market, where "the usual melancholy dulness [sic] of a Korean village is exchanged for bustle, colour, and crowds of men."²⁴ On the appointed day, paths leading to the village were thronged at an early hour with streams of farmers bringing an assortment of "fowls in coops, pigs, straw shoes, straw hats, and wooden spoons" for sale or barter.²⁵

Passing through one such market, Bishop paused long enough to survey the available ceramic goods, small table furnishings as well as the larger storage vessels.

One prominent feature of that special market was the native pottery, both coarse and brittle ware, clay, with a pale green glaze rudely applied, small jars and bowls chiefly, and a coarser ware, nearly black and slightly iridescent, closely resembling iron. This pottery is of universal use among the poor for cooking-pots, water-

jars, refuse-jars, receptacles for grain and pulse, and pickle-jars 5 feet high, roomy enough to hold a man, two of which are a bull's load.²⁶

"At that [autumn] season," Bishop closes her discussion, "these jars were in great request, for the peasant world was occupied, the men in digging up a great hard white radish weighing from 2 to 4 lbs., and the women in washing its great head of partially blanched leaves, which, after being laid aside in these jars in brine, form one great article of a Korean peasant's winter diet."²⁷

Among the visitors to the market were large numbers of traveling merchants ("mostly fine, strong, well-dressed men, either carrying their heavy packs themselves or employing porters or bulls for the purpose").²⁸ A few of these merchants—those selling fine silks and gauzes and expensive items of toilet—erected stalls along the street in the town center. Those who traded in mundane articles and farm produce more characteristically exposed their wares on low tables or mats spread on the ground.²⁹ Of the same class of individuals, Moose says: "Our village merchant takes his line of goods, whatever it may be, and goes out on the round of the markets, attending one every day, often returning to the same place every fifth day. If he is able to afford it, he will have a pony, cow, or a donkey, on which he will carry as much of his stock as he can, and the remainder will be carried on his own back."³⁰ As for the peddler of ceramic ware (Figure 4 and frontispiece):

These pot peddlers often have their wives and children with them, every one loaded with just as much as he can carry, the men and boys carrying their wares on a *jiggy* [*chige*, an A-shaped pack frame] and the women and girls carrying theirs on their heads. The mother is sometimes seen with a heavy load of the pots on her head, while the baby is strapped on her back. When they have followed the rounds of the markets till all their stock has been sold, they return home, only to load and start again.³¹

Demand was such, the author notes, that the pottery peddlers often "sell their wares from village to village without waiting to reach the markets."³²

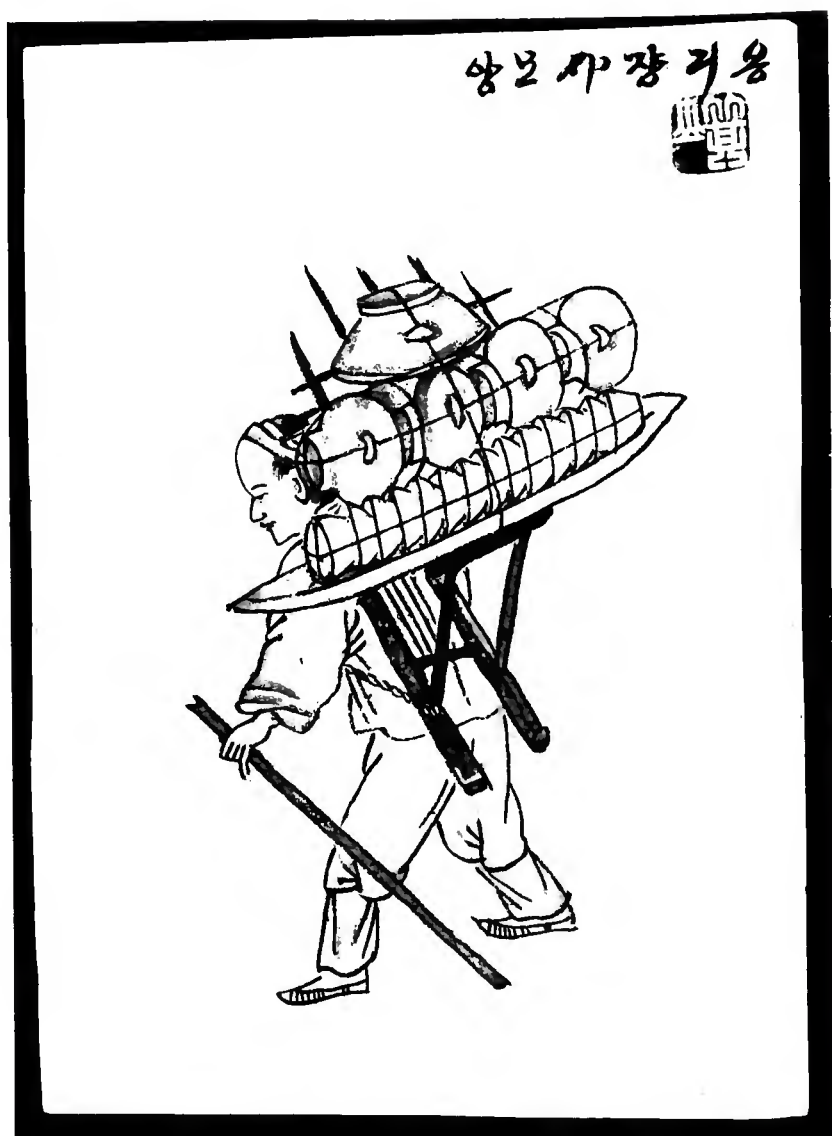


Figure 4. "Onggi Peddler" by Kisan, ca. 1886. (Courtesy National Anthropological Archives, Smithsonian Institution, NAA no. 211195.)

Artisan and Merchant

Owing to structural changes in Korean society during the late feudal era, skilled craftsmen and village merchants were ambiguously situated in the prevailing class system.³³ Though possessed sometimes of substantial wealth, neither was allowed entry into the *yangban* upper class, which was comprised in the main of leisured, tax-exempt bureaucrats, scholars, and military officers, who formed a hereditary closed elite below the royal family. The majority of petty entrepreneurs in fact remained akin to *sangmin* (literally, "good people"), the traditional class of agrarian smallholders and tenant farmers from which they derived. Others presumably shared a common lot with *ch'önmin*, a lower residuum of Korean society, which also included butchers, actors, courtesans, shamans, and slaves. These virtual outcasts lived in segregated, endogamous communities enjoying but a single peculiar freedom: a license to ignore the various Confucian proprieties that informed the behavior of their social betters.

Partly because of their physical association with clay and other base substances, ceramics manufacturers were held in somewhat lesser esteem than other productive members of society; their identification with *ch'önmin*, however, is by no means certain. An appropriate model for potters, given the proximity of the two occupations, is perhaps that provided by the equally maligned *pubosang*, or peddlers. As a group, the *pubosang* were divided between *pusang*, who packed heavy merchandise like "woodenware, earthenware, ironware, salt, dried seaweed, fish, etc." on A-frames slung across their backs, and *posang*, who shouldered relatively light, expensive items such as cosmetics, silk, paper, gold, silver, ginseng, and furs.³⁴ While loathed by the general populace, their loyalty to monarch and willingness to pay taxes, their unfettered movement about the countryside (making them potentially excellent messengers and spies), and, not least, their corporate ability to impede the normal flow of goods rendered to them considerable political and economic leverage. Of the *pubosang*, one nineteenth century writer offers this unparalleled description:

Domestic trade, which is almost always carried on by human bearers or beasts of burden, is entirely under their control. Most of them are widowers or men who are too poor to marry, but the

rest lead a procession consisting of their wives and children with them along the roads. Distributed throughout the land in the number of eight or ten thousand, they are subdivided by provinces and districts, under the supervision of chiefs, sub-chiefs, censors, inspectors, etc. They speak a conventional language so that they may recognize one another, greet one another wherever they happen to meet, and extend to one another the exterior signs of a most ceremonious respect. They are subject to severe rules, and their chiefs themselves punish crimes and misdemeanors committed by members, sometimes by death. They claim that the government has no right to interfere in their affairs, and none of them has ever been known to ask justice of a mandarin. They generally pass for honest and reputable, and packages or bundles entrusted to them for delivery in far distant provinces are faithfully taken to their address. It is said that their morals are highly corrupt and that they are almost all given to vices against nature. Nevertheless, their wives are respected, and any one of them who laid hands on the wife of one of his associates would be put to death immediately. They are insolent toward the common people, and dreaded even by mandarins. When they believe that they have suffered an affront or any kind of insult, they leave the district or city in mass, and since their withdrawal halts trade and prevents the circulation of merchandise, they must needs be parleyed with and their conditions met, after which they return prouder than ever.³⁵

The ambivalent sentiments that attached to artisans and merchants during Korea's late historic period can best be appreciated by reference to events of several centuries earlier. During roughly the first half of the Yi dynasty (1392–1910), free commerce was suppressed as undermining the importance of agriculture, considered by the ruling elite to be "the foundation of society." This in part mirrored conditions extant during previous dynasties when craftsmen were drawn from a disgraced class of traitors and criminals;³⁶ however, it was also a concomitant of Confucianism, newly elevated as a state religion, which deemed profit-taking unseemly and which denigrated manual labor as the work of the lower classes. Local settlements, therefore, existed as self-contained production units, discharging as well an annual obligation to the government in the form of *corvée*

labor and specialized local goods like textiles, dyes, furniture, building materials, and medicinal plants. Skilled artisans from the villages were registered with public workshops in which they were required to labor part of every year. They were exempt from taxation during this period of compulsory service but at best drew only negligible wages.

To be sure, public markets were not entirely absent at this time but were kept in such an under-developed state as to be largely ineffectual. Indeed, it took a series of cataclysmic events beginning in the late sixteenth century to loosen constraints on basic socioeconomic institutions. Between 1592 and 1597, the Japanese warlord Toyotomi Hideyoshi laid siege to much of the peninsula—a disaster repeated three decades later when, in 1627 and again in 1636, Manchu armies swept through Korea from the north. These crises, among other things, inspired a degree of social mobility as demonstrated in the debt-ridden government's willingness to sell titles or exemptions from military service to wealthy *sangmin*. It then augmented the dwindling ranks of soldiers with *ch'onmin* who, through such voluntary action, were reclassified out of the stigmatized class.

A general population decline coupled with the loss of land registers—other effects of the wars—made possible the consolidation of small farms into large estates. This process caused the eviction of many peasants whose cultivation rights had been protected by tradition alone; at the same time, however, it stimulated efficient farming methods and the planting of commercial produce such as ginseng, cotton, hemp, tobacco, and medicinal herbs. Adding impetus to these changes were government attempts—with an eye toward enhancing revenues—at overhauling the tribute system. Villages had previously delivered specialized local goods into the possession of provincial administrators or tribute collectors, who stored them for varying lengths of time before forwarding them to the court. Not only was this system cumbersome, but it was susceptible of mismanagement and theft. The subsequent system assessed households a uniform payment not in kind, but rather in rice, leaving the soliciting of essential goods to independent purchasing agents in Seoul. These wholesale merchants greatly facilitated the growth of private industry by expanding existing trade networks and by furnishing selected local artisans with raw materials.

Eventually some semblance of a mercantile economy emerged, an economy stimulated as well by the circulation of coinage, which provided an important bridge between town and country. The com-

mercial structure of the late eighteenth and early nineteenth centuries was thus comprised of two tiers, with well-capitalized wholesalers and their brokers at the top and producers, traveling peddlers, and village merchants below. In consequence of this economic transformation, productivity in the state-run workshops fell off. Labor and financial difficulties multiplied until most of the government offices (an important exception, to be discussed next, being the supplier of royal porcelain) released their artisans to the tax-paying private sector. This action had a cumulative effect: as government workshops closed and supplies were purchased in the marketplace, the markets themselves expanded.

The vast majority of the new private workshops (*chöm* or *chöm-ch'ôn*, "workshop" and "workshop group")³⁷ were simple cottage industries—extensions of family domestic activities such as textile weaving and grass hat-making that could be pursued part-time with farming. A smaller number were founded by ambitious individuals (*chömjū*) who supplemented family labor with itinerants (mostly displaced farmers) who contracted their services on a daily, weekly, or seasonal basis. Located near sources of raw materials or market areas, these "factories" specialized in heretofore scarce or restricted handcrafts including knives, brassware dinner sets, dining tables, and horsehair hats. In all, their emergence—paralleled by the emergence of craft guilds that thrived during the period just prior to the opening of Korean ports to foreign goods in 1876—anticipated the decline, and ultimately the demise, of the feudal state. It remains to be said, however, that the Yi dynasty artisans and merchants never quite coalesced as a distinct social class nor did they achieve the level of recognition accorded their peers elsewhere in East Asia.

The Porcelain Workers at Punwŏn

We will presently explore the relationship between private *onggi* producers and a special community of religious dissenters, newly emergent during the late Yi period. Before elaborating on this remarkable discovery, however, it is useful to examine first the living

circumstances of other types of ceramics workers, notably the manufacturers of ceremonial and table wares for the royal family and court. According to economic historian Kang Man-kil (from whose writings the following discussion is abstracted), these porcelain ceramists never quite freed themselves of government oversight, but continued instead to be regulated by the Sa'ongwŏn, or Royal Kitchen, until the latter part of the nineteenth century.³⁸

The royal porcelain kilns were established initially in Seoul; by the late fifteenth century, however, their general location was kaolin- and timber-rich Kwangju-gun ("Kwangju county") in Kyŏnggi Province where they came to be known as Punwŏn ("branch"). Workers at the Punwŏn were recruited from a dispersed pool of farmer-artisans who labored part-time for government workshops in the provinces. Although it was their normal obligation to be rotated periodically to the state facility, such an arrangement proved in time to be less than ideal. Not only was the rotating system costly and difficult to implement, but the concurrent growth of private workshops caused many artisans to resist additional impositions on their time; some even disguised their occupations to avoid registration with the Sa'ongwŏn. Just how serious was the problem was demonstrated in 1530 when nearly half of the Punwŏn's work force deserted the premises in protest over poor living conditions. In response, the government, in 1543, declared porcelain-making to be a hereditary profession and warned the remaining ceramists against escaping or changing their assignments for easier jobs.

Many errant workers were thus restored to their duties. The troubles were far from ended, however. Indeed, no greater calamity befell the Punwŏn than the Japanese invasions of the late sixteenth century (referred to sometimes as the "pottery wars"), which resulted in the loss of substantial numbers of artisans to fiefs in northern Kyūshū and western Honshū. In the aftermath of these wars, the nearly bankrupt Korean government dissolved many of its administrative offices, leaving intact only its principal industries like minting, paper-making, and weapons production. The porcelain industry, for reasons that are not entirely clear, was also resuscitated at this time, though not without modification.

In 1697, the rotating system of recruitment was abandoned and a single group of 325 ceramists and laborers was given permanent, full-time assignment at the Punwŏn. The provincial artisans—many

of whom no longer possessed the skills to work in the state facility—were allowed thereafter to meet their obligation to the Punwŏn by providing its employees with compensation in bolts of cotton cloth. At the same time, the Sa'ongwŏn officials recommended that the royal kilns be located permanently on the banks of the Uch'ŏn River, a tributary of the Han and an important avenue of transport. The kilns had formerly been moved among different sites in Kwangju-gun on an average 10-year cycle—necessitated by depletions of timber resources. Such depletions were made worse by the encroachment of peasants on royal fuel yards once the primary growth had been stripped away. Turning a difficult situation to their advantage, the administrators elected to leave the impoverished fire-field farmers in place while taxing the latter in kind for the privilege—a clever scheme that shifted the onus of obtaining raw materials from themselves to the squatters. Once the Punwŏn was permanently situated, the peasants were obliged to cut and transport the workshop's firewood supply plus contribute rice to feed the potters. Clay was procured through similar means. Hapless residents of far-flung kaolin mining districts were mobilized to dig and transport the material both overland and by river to the Punwŏn.

Neither the "professionalization" of the industry nor the relocation of the kilns to a permanent site (which did not occur until after 1718) were in themselves sufficient to save the Punwŏn. Resource procurement remained a chronic problem for the administrators, as did complaints from the craftsmen over a workload that left them little or no time for farming. Indeed, when their principal source of support—the cloth payments—was delayed, as repeatedly happened, the men and their families subsisted on insubstantial grain loans from the government relief office. So serious was this problem that a number of Punwŏn potters actually starved to death. What preserved the royal workshop in the end was a gradual lessening of restrictions on the disposal of the various wares. In principle, at least, all of the ware belonged to the monarch. In fact, the court's twice-yearly share by 1657 amounted to only one-third of the total production; half of the disqualified vessels were appropriated by the Punwŏn's director for his own use, while the rest went to purchasing agents in Seoul. More significant still, the potters seem to have acquired at least tacit permission to produce ware on the side to supplement their meager incomes. Thus much "royal" porcelain was redirected, legally and

otherwise, to provincial officials and even wealthy commoners.

During the reign of King Chǒngjo (1777–1800), the Punwŏn reached a productive peak, turning out vast quantities of fine porcelain, either plain white or decorated with underglaze cobalt, for both official and private use. Table and toilet wares included plates, covered bowls, wine bottles and flasks, tiered boxes, flower vases, candlesticks, pillows, and sundials. Ceramics historian G. St. G.M. Gompertz has written of this period: "There were villas on both sides of the river, and the kilns were frequented by men of literary and cultivated taste who became interested in the technique of pottery making. Some brought with them painters to draw designs to their liking, and scholars were particularly concerned with placing special orders for brush stands, water droppers and other articles for the writing-desk. Vessels and dishes decorated with Han river scenery became popular among the Punwŏn wares."³⁹ In fact, this efflorescence was short-lived. Having surrendered in all but name its charter function as exclusive producer for the court, the Punwŏn went into a decline in the nineteenth century. It passed finally into private ownership in 1883.

What comparisons can be drawn between the porcelain and *onggi* industries? We may surmise that ordinary food jar potters were far less constrained in their movements and business dealings than either the Punwŏn artisans or their provincial counterparts, both of whom were still obliged as late as the eighteenth century to dispose of their wares among upper-class clients. *Onggi*, by comparison, was sold to rich and poor alike. Indeed, the relative advantage, however marginal, that food jar potters enjoyed over their more-sophisticated counterparts is indicated in a Korean maxim cited by a recent author, Kim Yŏng-mun: "There is an old saying that the porcelain maker profits on his investment four-fold, the brass maker six-fold, and the *onggi* potter five-fold . . . This means that [even an ordinary] potter can accumulate wealth relatively easily."⁴⁰ This is not to suggest that theirs was an easy existence. As merchandisers of their own ware, according to Kim, the potters shared quarters along the road with house servants and were reduced sometimes to begging for meals. In the main, however, their work sustained them even in times of famine and war.⁴¹ Most important, it was precisely their low station and mobility that provided the necessary "cover" for surreptitious activities to be detailed next.

Catholic Onggi Potters

Christianity took root in Korea in the eighteenth century—a development credited not to foreign missionaries, but rather to a group of young, reform-minded aristocrats known collectively as the Sirhak, or “practical learning,” scholars. These empiricists had long since dissected the prevailing state religion, “neo-Confucianism,” and had found its abstract rationalism sterile, its metaphysical content wanting. Moreover, they found stultifying its precise definition of the relationship of individuals and classes in society which, in practice, condemned most of the populace to lifelong poverty and servitude. Intense curiosity, therefore, greeted the arrival in the country of a strange new literature carried with the personal effects of returning tributary envoys to the Ming and Qing (Ch’ing) courts. These books, translated into Chinese by Jesuit missionaries in Peking, included not only religious texts such as Matteo Ricci’s influential *Tianzhu shiyi* (*T’ien-chu shih-i*, A True Disputation about the Lord of Heaven), but also works on Western philosophy, astronomy, and the natural sciences.⁴²

By no accident, many members of the Sirhak movement were identified with the political opposition of this particular period in Korean history. Some were already evincing serious interest in Catholicism—with its implied egalitarianism and its promise of otherworldly salvation—as early as 1720, although they did not take decisive steps to embrace the religion until 1777. In the winter of that year following the ascendancy to the throne of the relatively acquiescent King Chǒngjo, several leading Sirhak scholars retired to a secluded temple to pursue their studies of both Confucian and Catholic texts without distraction. Although their comprehension of the latter was extremely vague, after 10 days’ debate they determined that they had found in the Western teachings the possible solution to several troubling issues.

In 1783, Yi Sǔng-hun, the son of an envoy to the Qing court, was the first of the group baptized a Christian. Returning from Peking with books, crucifixes, and other devotional materials, Yi (given the Christian name Peter) in turn baptized those who had sent him, plus other members of the *yangban* upper-class who took their teachings to various parts of Kyōnggi, Ch’ungch’ōng, and Chōlla provinces. Thereafter, the new doctrine, despite the political dangers, was a topic of lively conversation both in the guest houses of the provincial nobility

and among members of the peasantry, who popularized its essential points of faith in the style of folk rhymes.

Inevitably, the Catholic *yangban* invited the attention of court skeptics who, in an ominous portent of things to come, arrested and tortured one of their number in 1785. Published attacks on the Christians mounted over the next several years, their heterodox religion being denounced repeatedly as a poisonous weed growing in a Confucian garden. Some of the founders apostatized—notably (and ironically) after church officials in Peking in 1791 demanded that they renounce their Confucian-inspired ancestor rites and refrain from attempting to establish a priesthood independent of the Holy See. Nevertheless, when the first foreign missionary, James Zhou Wenmo (Chou Wen-mo), arrived on Korean soil three years later, some 4000 adherents had already taken up the new religion with what would soon prove to be reckless fervor.

1800 was an enormously fateful year for the Christians. King Chǒngjo died, leaving as his successor the Queen Dowager Kim who, as regent for the boy-king Sunjo, became deeply involved in court intrigues. As the Dowager Kim's principal objective was the dismantling of the opposition party, she found the Catholic *yangban* an especially attractive target. Accordingly, stern repressive measures were launched, culminating in 1801 in the first of four great persecutions. During the initial purge virtually all of the founders, as well as Father Zhou and several sympathizers in the royal circle, lost their lives, and hundreds of other believers were banished to distant localities.

Sufficient evidence exists in the literature to establish a link between Catholicism and the pedestrian ceramics industry, tracing almost to the advent of Korea's Christian era. The most important source of information is indisputably Charles Dallet's *Histoire de l'Église de Corée* (1874), a substantial two-volume work compiled from the correspondence of French missionaries in the country after 1836.⁴³ It is in Dallet's compendium that we find mention of a certain Paul Yi To-gi, a devout Christian who was making converts of potters as early as 1797:

Paul Ni To-kei [Paul Yi To-gi], born in the district of Tsien-
iang [Ch'ǒngyang], T'siong-t'sieng [Ch'ungch'ǒng] Province was
not lettered but learned to love God and practiced sincere Chris-

tian virtues in the school of the Holy Ghost. What little wealth he possessed was devoted entirely to converting pagans.

His work having attracted the attention of our holy religion's enemies, [Paul] was obliged to change residence five or six times; each of these places in a short while became a sanctuary for Christianity. At length he established himself in a pottery workshop in the district of Tieng-san [Ch'öngsan] where he lived off of a very small commerce. All of those around him were pagans and he commenced teaching them about the true God and was so successful that in a short while the entire village was converted.

When the governor's order arrived, a pagan of the neighborhood named Kim threatened to denounce Paul as the leader of the Christians. His wife, afraid, told him to run away, but he was loathe to defy God's will and bring scandal on the neophytes who placed their confidence in him. He simply hid his religious books and objects, and waited.

The eighth day of the sixth moon in 1797, [Paul] was at home working when all at once several armed men presented themselves, asking through the garden fence if he were present. "I am," he answered, "Who is calling me?" . . . "We are," they said, "from the court sent to find a slave who has run off. Having learned that you possess a Chinese almanac containing clues to the whereabouts of lost things, we want to see it in order to facilitate our search"

Paul answered, "I have a calendar but it only indicates the passage of time," and he brought it to them. "Read it for us," commanded the chief of police. "I don't know how to read Chinese characters." "Then you only know how to read religious books of the Heavenly Master?!" And without waiting for an answer [the police chief] gave the order to arrest him. Suddenly ten men appeared and jumped on him, grabbing him securely.

They searched the house, whereupon they discovered a cross and some books. They took him into the woods nearby and whipped him with rods. While he was being whipped, the chief questioned him about the hiding place of the priests [sic] and called upon him to denounce the Christians—all to no avail.⁴⁴

A second relevant episode reported in Dallet is the saga of Alexander Hwang Sa-yöng, scion of a distinguished *yangban* family, who forsook a promising career in the royal court to marry the

daughter of a Catholic dissident. In 1798–1799, Hwang moved his residence to a location near Seoul's West Gate, where he dedicated his energies to copying the Bible and instructing the offspring of fellow Christians. He also sheltered Father Zhou, the Chinese priest, until at length his personal safety was so imperiled that he was obliged to flee the capital. It was in Ch'ungch'öng Province, we learn from Dallet, that Hwang found sanctuary with a group of convert potters:

[Alexander Hwang Sa-yöng] spent some time in the district of Niei-tsien [Yaech'ön] in Kieng-sang [Kyöngsang] Province, then settled in a pottery workshop in the village of Pai-ron [Paeron], Tsiei-tsien [Chech'ön] district on the border with Kang-ouen [Kangwön] Province.

All the workers were Christians. To shelter him, they prepared a subterranean chamber whose entrance was covered with big earthen vases made at the establishment. The Christian villagers themselves did not know [the identity of the visitor] for a long while; only the owner of the house with his wife and Grégoire Han's mother who came often to see him knew the truth.⁴⁵

During the long months of hiding, Hwang drafted his famous "Silk Letter"—a fabric scroll penned in sympathetic ink—to the Bishop of Peking, detailing the good works and eventual martyrdom of Korea's first missionary-priest. Hwang's letter called upon the bishop to respond to the worsening domestic situation by dispatching a naval force to intervene. Instead of reaching its destination, the message was intercepted by the authorities and used as further justification for the continued persecution of Christian evangelicals. Toward the close of 1801, agents of Dowager Kim entered the potters' village at Paeron searching for Hwang. For a time, their quarry went undetected, but as they trod upon the jars covering his hiding place, a hollow reverberation revealed the secret. Following a trial, Alexander Hwang Sa-yöng was found guilty of high treason and executed by beheading; his family was simultaneously banished from the capital.

The exact event or motive that inspired the coincidence of potters and Asian Christians may never be known. It is noteworthy perhaps that Jesuits at the Qing court early in the eighteenth century—possibly the same missionaries encountered by the Korean envoys—were keenly interested in aspects of China's ceramics industry. One Father

d'Entrecolles, in letters dated 1712 and 1722, describes in detail the imperial porcelain works at Jingdezhen (Ching-te-chen) and is known to have advised the emperor on the application of certain European glazes.⁴⁶ This information alone, however, falls short of proving that the Jesuits ever saw in pottery-making a potential survival occupation. Indeed, no evidence has yet surfaced to indicate that Chinese Christians preceded their Korean brethren in such a vocation, especially the production of ordinary food jars.

Many Korean Catholics, for their part, are of the conviction that the first Christian potters were none other than the Sirhak founders.⁴⁷ Such a proposition seems equally unlikely. Despite the obvious intersection of artisan and aristocrat in the Alexander Hwang Sa-yŏng story, we can be fairly skeptical that any founder would have so defiled his personal reputation as to actually manufacture ware—however straitened his condition or vigorously he might have campaigned to remove the Confucian prejudice against manual labor.⁴⁸ This is not to impugn the oral record. Lacking evidence to the contrary, however, we have to conclude that propinquity and opportunity—not design—were the probable factors that first brought potters and Christians together.

To be more specific, we know that large numbers of commoners, desperately exploited by predatory local officials and equally pressed by cholera epidemics, floods, and droughts, were by the last quarter of the eighteenth century seeking relief in new religions, nativistic as well as Western-inspired. Those who converted to Catholicism, Dallet tells us, were driven by persecutions to remote, mountainous areas where they achieved a marginal self-sufficiency growing millet, vegetables, and hemp (which was woven into cloth) in the ashes of burned-over hillsides. Tobacco, introduced to the peninsula from Japan in the late sixteenth century, was also cultivated almost certainly as a marketable crop.⁴⁹ As food jar potters were assimilated into the Christian community—probably in the manner described in the Paul Yi To-gi story—their product came eventually to be viewed as a saleable commodity more valuable even than tobacco, which was circumscribed somewhat in its natural range. Clay and firewood for making ceramic ware, by contrast, were to be had in virtually all mountain environs.

In time, it is believed, the various small enclaves of Korean Catholics found other significant advantages in pottery-making: namely, the opportunity it afforded them to move undetected—or at least unmolested—about the countryside in the guise of *onggi* ped-

dlers. Church members probably did not attempt to monopolize the trade at this early date, if for no other reason than such behavior would have exposed them to their enemies. So favored was the occupation, however, that by the time the persecutions ceased it was dominated by Christians, especially in the central and western provinces. The tension between Christian and non-Christian potters is suggested in the following incident, said to have occurred around 1813 in Ch'ungch'öng Province:

Pierre Ouen [Peter Wön] was from Tek-meri [Tökmö] village in the district of Kiel-sieng [Kyölsöng]. Making his living in a pagan pottery of his country, he was converted [to Catholicism] with his older brother. In order to practice their religion freely, the two brothers relocated first to another pagan factory in the district of Hong-tsiou [Hongju] where they were captured by the mandarin and tortured. After being released, they found refuge at Eu-sil [Üsil], Ien-san [Yönsan] district, in a Christian workshop.

The persecution having started and Christians of their workshop having been denounced, the two brothers fled to the district of Tsin-tsaen [Chinch'ön]. There they were arrested once more, taken to the prefecture at Ien-san, and after an initial interrogation sent to the criminal justice of Kong-tsiou [Kongju].

The elder brother in his weakness apostatized and was exiled; Pierre Ouen was taken to the governor where, during three interrogations, he suffered even worse tortures. Without giving in for an instant, he died gloriously in prison.⁵⁰

By the 1820s, the troubles had surfaced in Chölla Province to the south. As indicated in the preceding historical sketch, the Christians were ever on guard against informers in their midst. The next story, illuminating an event said to have taken place early in 1827, amplifies this theme.

In the village of Tek-sil [Töksil], Kok-sieng [Koksöng] district, in the southeastern part of the province, there was a pottery workshop in which all of the potters were Christians. A new convert named Tsien [Chön] established in this place a winehouse for the service of the village.

Han Paik-kiem-i [Han Paek-kyöm], son of the renowned

martyr Thomas Han, was [also] living at this time in the village. Known for his violent character and his less than exemplary conduct, [Han's] actions justified the saying of [local] Christians: "Could it be that such a noble martyr would have fathered such a despicable son?"

One day the earthen pots were to be taken from the kiln and there was, as usual, a great gathering of people followed by generous libations. Han Paik-kiem-i, already intoxicated by the wine, was complaining loudly that his pots were too small. After arguing with the innkeeper, he turned on the man's wife insulting her and beating her badly.

The innkeeper, whose faith at this time was not well established, could not tolerate such insults and decided to avenge the whole affair. He gathered up his religious books and, without reflecting on the consequences of his behavior, took them to the mandarin in Kok-sieng saying that these belonged to Han Paik-kiem-i and other Christians against whom he had a complaint.⁵¹

This small tempest precipitated a full-scale persecution that proceeded from one Christian village to another, its fire consuming the territory for fully three months. Many of the Catholics fled to the mountains, while those remaining were stripped of their belongings and left to perish from exposure and starvation.

In 1836–1837, three French priests under assignment of the Paris Society of Foreign Missionaries entered the country disguised as mourners and commenced training native clergy. Martyrdom was their reward; in due course, however, they were followed by still other French and Chinese missionaries.⁵² Despite continued obstruction of its work, the Korean Church experienced modest growth over the next 20 years until by 1857 its membership was reported at just over 15 thousand. Chölla Province during this period was the locale for yet another incident involving potters.

Paul Pak Tsioun-hoa [Paul Pak Chun-hwa], was the oldest of nine brothers from Tek-san [Töksan] district, all of whom practiced their religion with great fervor. Finding it difficult in that country to feign participation in the superstitious ceremonies of the pagans, they relocated together to the district of Siou-t'sien

[Sunch'ŏn] to the home of a Christian who owned a pottery workshop

Driven from there by the 1839 Persecution, [Paul] took refuge in another pottery workshop in the district of Ko-san [Kosan] where shortly after, at the eighth moon, he was arrested with his father and one of his brothers. Taken to Tsien-tsiou [Chŏnju], he proposed to the authorities that his father might be released now that he and his brother had been captured. The official, moved by this display of filial piety, liberated the father. Shortly after, when a favorable occasion presented itself, the younger brother raised the possibility of escaping. [Paul] refused, saying it was better to abide by the commandments of Providence.⁵³

The last and most violent persecution, claiming at least 8000 lives, started in 1866 during the regency of Yi Ha-ung, better known as the Taewŏn'gun, or Grand Prince, and continued until his son's majority in 1873. Profoundly alarmed at recent upheavals in China and justifiably fearful of Japanese, Russian, and French advances on his own country, the Taewŏn'gun imposed a complete embargo on outside contacts or influences. Internally, he moved against the Catholics and also those Confucianists who sought to undermine his efforts at domestic reform. Ultimately, he was unsuccessful in these endeavors and in 1876, three years after relinquishing the throne to his son, saw the port city of Pusan opened to Japanese trading ships. To counter Japanese designs on the peninsula, Korea, encouraged by China, concluded treaty negotiations with the United States in 1882 and with France in 1886. Following the latter treaty, religious freedom was finally guaranteed the Catholics who, for the most part, chose to remain an inconspicuous rural body well into the present century.

Periodically, the story of the Christian artisans has been retold.⁵⁴ The earliest post-Persecution reference to the events just described is found in the writings of a German Benedictine, Norbert Weber. In April of 1911, Weber visited an unidentified potters' village about which he wrote:

This afternoon we were able to examine a relic from the time of the Persecution. About an hour-and-a-half from Katheni is a small village of Christians who fled this way during the days

of affliction. As potters, they moved restlessly from place to place until they finally settled here.

Having been separated from all their worldly property, they turned to making pottery which during the Persecution afforded them a degree of security. If they believed their place to be menaced, their work enabled them to relocate inconspicuously on the pretext that "better clay and more firewood exist in another location."

The sale of the products brought them frequently into town where customers could obtain the things from stalls; this gave them as a group the means to receive news and at the same time the opportunity to visit the priests and to receive the Holy Sacrament without causing a disturbance. The potters' work during the Persecution had saved them and had procured for them a meagre support; to the present day they stay faithful to it. Poor they were, poor they are still, rich only in the strength of their beliefs and their burning devotion toward Christianity.

The entire village of 150 individuals is organized and works together as a single family. We step through a door, barely a meter-and-a-half high, into a dimly lit potters' hut, where adjacent to the door a potter sits before his wheel. The latter is set into a hollow in the ground, such that its surface is even with the clay floor. The man sits on the floor, his feet stuck in the cavity so that he can turn the top wheel (which is parallel to and united with the bottom wheel) with his bare feet. He throws a lump of well-prepared clay on the wheel and pounds it flat with a small wooden slat, a half-meter long and just under a handwidth wide. Already his feet rest on the wheel and bring it into swift rotation. With a securely held knife-like wooden implement, he cuts around the clay disk, then nimbly attaching the coil of clay around the periphery, skillfully kneads the two together and putties the joint. Ever higher the rim rises; it should develop from the unformed mass into a well-executed pot. With a small flat wooden tool he now begins to smooth the clay wall by pounding it from the outside, [simultaneously] holding a fist-size pestle against the inside wall. Under this continuous pounding and turning, the wall grows noticeably higher. Now the correct height is attained, and with a few strong kicks on the wheel, it rapidly flies in a circle and straightaway the potter has trimmed the top with a small pointed stick. The shape of the vessel continues to emerge. With

a rag, which he plunges into water, he folds the rim over and forms the whole by constant revolution of the wheel. The pestle comes into use again.

He will press it against the inside of the pliant potwall, therewith curving the middle outwards. To prevent its pushing through the wall, he holds the small flat wooden slat and soon has beaten the pot, with renewed caution, until its final form is achieved. Now the wooden smoothers are to be used; with the edges of flat wooden knives he planes off the unevenness and with their points engraves the encircling decorations. The pot appears to be finished. Still, the bottom—which until now was left quite massive in order to give the whole as secure a footing as proportions would allow—is too thick and heavy: while one hand supports the inside in order to feel the thickness of the wall, the sharp wooden tool cuts a fingerthick chunk away from the outside. Here again it is smoothed. And now the vessel, which stood stiffly at the beginning with vertical walls, begins to bulge out in graceful form, narrowing at the top toward a graceful rim. Quickly the potter now affixes the handhold and the great jar has passed its first trial. A skilled worker will bring seven such pots to completion in a day, for which he must also laboriously prepare the clay.

Following these afflictions, the pot journeys into a great hall where a quantity of its comrades, having survived the same labors, rest and slowly dry. Three such halls, covered over with straw and with a surface area of eight to twelve meters, stand there. The sturdy clay wall and the low entry ensure the necessary coolness so that the clay will not crack. By the entrance are two or three forming places like those we saw in the small hut a brief while earlier. These are presently vacant, and the wooden spike on which the wheel rotates stares from a hole approximately a meter in diameter and 30 centimeters deep. Next to it lies the wheel which we can now examine more closely. The heavy wooden top disk, about 60 centimeters in diameter, is attached to the lighter one by four wooden feet, the latter of which is turned with the feet.

In the darkness of this hall the pot slumbers for a fortnight. After it is dried through and through, then new torments await. It must now journey into the great fire-oven.

At the end of the small village this kiln stretches wearily

along a gently sloping hill to a length of 25 meters; it is two-and-a-half meters in breadth. In one corner it inclines in a tired manner at an angle of about 15 degrees towards a small pond. Along both sides earth is heaped up to maintain the heat of the fire. Clay is also heaped atop the arch. At the lower end of the elongated kiln a glow streams from a firing chamber through the whole kiln. At intervals of about 30 centimeters along the ceiling, airholes break through which can be closed off to retain the heat. By opening and closing them, they allow for the regulation of the air draft.

Once the blazing fire is extinguished and the oven slowly cooled, the closing act is over, the trial by fire passed—that is, if a sad aftermath has not occurred in which a clumsy or careless hand has broken a pot, after so much effort, into potsherds.

Outside in the open between the huts the finished pots are stacked in a large group where they brave wind and weather and stand fearless before the lively youth, who are nevertheless instructed not to direct stones at their dark brown companions. The best ware, in addition, is protected in a shed. A few lads are swinging on a scaffolding in order to cover the pots with straw, while others sit on the ground bunching long grass together, binding it into thick mats which serve as groundcover to protect the pots which are placed upon it.⁵⁵

The Korean Catholic Church today claims a substantial membership of 1.7 million, converts mostly since the Korean War. Such numerical gains have won for the church a large measure of respectability in contemporary Korean society. They have not, for the most part, benefited the potters and their farmer neighbors (the “old Catholics”) who are stigmatized even yet as somewhat rustic, inarticulate, and given to excessive drinking and other vices. It was not long ago, in fact, that the men and their families were called, with much contempt, *onggi chaengi* (“*onggi* followers”). (Earlier terms for the potters reported by Catholic historian Ch’oe Sök-u include *chömgot tül* (“‘things’ connected with pottery”), calling forth their nearly untouchable status, or the equally degrading *Ch’önjugyo chaengi* (“Catholic followers”), implying a kind of duplicity.⁵⁶) Attitudes are gradually changing, however, owing in part to a growing concern in some quarters over the endangered state of the traditional arts. At the same time, the potters’ remarkable story is becoming more widely known



Figure 5. *Antique food jars and tobacco plants at Catholic Martyrs' Shrine near Seoul. The historic link between the church and the makers of onggi is well-known to Korean Catholics. (Photo by Robert Sayers, 1981.)*

and was—at least indirectly—alluded to when Pope John Paul II canonized 103 of the early church's martyred number during 1984 bicentennial observances. An emerging consensus among Korean historians is perhaps best articulated by Kim Yŏng-mun, the authority quoted earlier: "In the future if we consider [the potters' craft] from an historical perspective, we may come to accept that *onggi*-making and Catholicism in Korea were mutually dependent—that without one, the other could not have survived"⁵⁷ (Figure 5).

Japanese Contributions to a History of Onggi

As a result of the Russo-Japanese War of 1904–1905, Korea became a protectorate and then, in 1910 with the abdication of the monarchy, a colony of Japan. The period of Japanese rule from 1910–1945 saw

the development of a new literature reflecting the historical and intellectual pursuits of Japanese scholars as well as the more parochial concerns of the colonial administrators. These studies, regrettably, add little to our understanding of the Catholic potters' community. But they do furnish us with detailed descriptions of the craft and its economic context. A significant example is a 1917 article, "Chōsen no doki zukuri" (Earthenware Making in Korea), by pioneer ethnologist Torii Ryuzō.⁵⁸ Torii's principal objective was to account for physical similarities in Japanese and Korean ceramics of the first through fifth centuries A.D. In the modern ceramic product, *doki* (the Japanese rendering of *t'ogi*, a term roughly equivalent to *onggi*), he recognized a possible survival of early Korean earthenwares and a putative link between Japanese and Korean traditions.

Most of Torii's investigations were made at a pottery village called Tōgwŏn in Hamgyōng Province. Here, during a relatively brief work season imposed by the northern climate, he discovered a community of artisans turning out quantities of traditional-style water jars and basins, rice steamers, liquor flasks, and portable cooking braziers. Wooden ware and brass rice bowls were also in common use among the local populace, although the metal containers were being supplanted by high-fired ceramic versions of recent Japanese origin. Indeed, as a general trend, Torii felt that imported ware was inexorably displacing the domestic product.

Production methods at Tōgwŏn accord generally with those cited in Western accounts. The workers obtained their ball clays locally, which they processed by crushing and sieving (and to which, apparently, they added a quantity of ash); they then kneaded the material into disks and coils. Potters' tools included the normal paddles and anvils, clamshell scrapers, and cotton or hempcloth finishing strips; earthenware heaters were also employed in the making of large jars to hasten their drying. After the ware was fired in a pine-fueled kiln, it was loaded up in pack frames and taken away to an outdoor market.

A considerably more exhaustive survey of ceramic production, *Chōsen no yōgyō* (Ceramic Industry of Korea), was published in 1926 by the Japanese Government-General as one of a series of investigative reports on the peninsula's natural resources.⁵⁹ Of signal importance to the present study is the inclusion of a census of pottery manufacturers for 1924. In that year there were 3111 producers of *tōjiki* ("pottery-porcelain-vessels") and 2183 producers of *suyakimono* ("low-fired ware"). Although the Japanese researchers are inconsistent in

their ceramics terminology, we may presume that the *tōjiki* workshops manufactured fine tableware (*tojagi* in Korean), while the *suyakimono* workshops produced the cruder storage forms (i.e., *onggi* or *t'ogi*).⁶⁰ Broken down by province (Figure 6), these two categories assort as follows:

	<i>tōjiki</i> workshops	<i>suyakimono</i> workshops
N. Hamgyōng Province	119	189
S. Hamgyōng Province	181	484
N. P'yōngan Province	56	168
S. P'yōngan Province	63	243
Hwanghae Province	187	168
Kangwŏn Province	342	276
Kyōnggi Province	380	175
N. Ch'ungch'ōng Province	156	65
S. Ch'ungch'ōng Province	240	73
N. Chōlla Province	423	70
S. Chōlla Province	355	178
N. Kyōngsang Province	391	90
S. Kyōngsang Province	218	4

Among the individual site reports in *Chōsen no yōgyō* is one concerning a century-old storage jar workshop in Sihŭng-gun, Kyōnggi Province. Comprising but a single thatched-over earthen building divided between work and storage areas, it probably differed in no significant detail from *onggi* workshops elsewhere. Each spring, the owner transported wet, blackish clay to the site at a cost of 95 *sen* per bullock cartload. A complement of four potters and four assistants labored an average 14–15 days to transform a quantity of the raw material into a kilnload of approximately 500 vessels (reported by their Korean names *tok*, *hangari*, *tongi*, and *pyōng*). Each potter, who received a monthly stipend of 20–50 *yen*, averaged 20 medium-size jars or two enormous vats during a 10-hour work day. Stacked in a sloping tunnel kiln, 27 meters long, the vessels were thereafter fired for an additional four days and nights. Firewood, which was very expensive in this particular location (120–130 *yen* per kilnload of ware), was freighted in by boat from Kangwŏn Province.⁶¹

About such workshops generally, the authors conclude: "They are all carried out under Korean [i.e., non-Japanese] management and

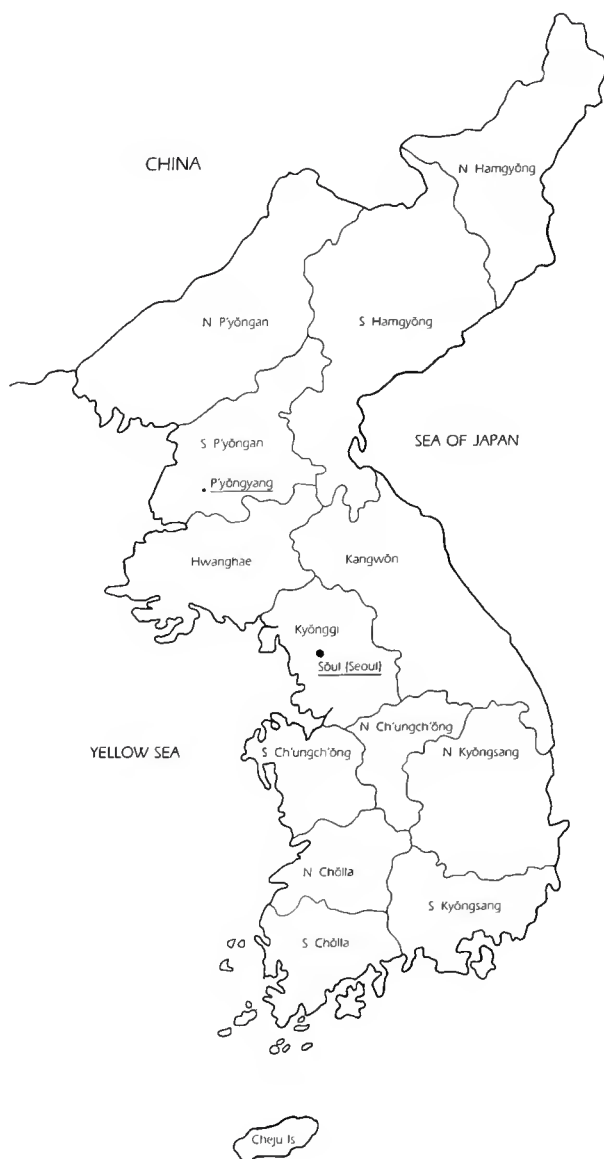


Figure 6. Korea's provinces. Until 1896, Korea was divided administratively into eight provinces: Hamgyŏng-do, P'yŏngan-do, Hwanghae-do, Kyŏnggi-do, Kangwŏn-do, Ch'ungch'ŏng-do, Chŏlla-do, and Kyŏngsang-do. Thereafter, the eight provinces were subdivided into 13 and, after 1945, Cheju Island became the fourteenth. (Illustration by Daphne Shuttleworth.)

are passed on in families. The antiquity of this type of production is not known, 400 years or more. The techniques are so inferior as to merit no serious study The workshop owner provides the capital, purchasing raw materials and firewood out of the proceeds of the sale of his products. Profits are consequently small, with the larger share going to the owner; the potters themselves earn very little."⁶²

As valuable as such observations are, the Government-General's report is even more important for what it reveals about the allied ceramics industries—those categories of manufacturers who have not, by and large, survived to the present. At Kwangju-gun, the site of the former royal porcelain works, for example, the Japanese observers found three extant workshops supporting about 20 resident personnel. Work teams were divided among clay preparers who manned the settling tanks used to cleanse the white kaolin of carbonized wood and other impurities; potters (who averaged 150 small bowls daily); ware finishers who, working on a second type of wheel, decorated the jars with underglaze cobalt; and general assistants who moved the product about the premises and who supervised the drying. After the ware was formed and finished, it was loaded into a segmented version of the *onggi* potters' inclined tunnel kiln. (Ordinarily the bowls would have been bisque-fired, according to the Japanese observers, but this operation had recently been discontinued in the interest of fuel economy.) Each of the kiln's 11 chambers accommodated 650 vessels, making a total capacity of about 7000 pieces. Over an eight-month work season, the three local kilns were fired approximately 10 times, following which the ware was taken away either on merchants' backs or by boat.⁶³

Comparable information is also reported for the makers of lesser-quality table and kitchen wares.⁶⁴ In three remote mountain villages in North Hamgyōng Province, production (which occurred mainly during the winter months when farming was in abeyance) centered on a miscellany of crude basins, storage jars, grinding bowls, bottles, plates, and portable cooking braziers. Each village shared the services of two or more professional potters as well as a community kiln. Participating households procured their own ball clays—ranging from a fine-textured white clay to a fairly-coarse yellow substance—which they washed (at the recent instruction of the provincial officials) in mixing and settling tanks built alongside a nearby stream. These clays were pulverized in handmills, then combined, variously, with other materials: red clay to improve the body's turning qualities, black clay to lower its fusing point, sand to offset a high lime and silica content.

Once cleansed, the clay was presented to the itinerant potter, who treaded on it a last time, then wedged it on a stone slab. Over five to eight days, the artisan produced a kilnload of around 3000 pieces. Meanwhile, an assistant trimmed the finished vessels with a metal blade, then placed them on a heated platform to dry. Reclaiming his ware at this point, the underwriter/owner glazed the assorted jars and bowls with either an “ash glaze” of cooking ashes and clay slip or feldspar, or a “black glaze” of wood ashes and a local red clay. In some villages, the ware was bisque-fired; in others it was glaze-fired only. Residents of the community turned out to assist each pottery entrepreneur in setting the village kiln—which like the porcelain kilns was segmented into 13–15 chambers, exclusive of the firebox—and then the structure was fired for a relatively brief 16–24 hours.

Sample costs for one of the ceramics manufacturers included 50 *yen* for 10 oxloads of fuel, 2 *yen* 50 *sen* for the kiln rental, and 10 and 5 *yen* for the potter and his assistant. These figures were charged against the value of the finished product—between 70 and 80 *yen*. Annual production for this village, involving approximately one-sixth of the households, was about 1000 *yen*, while a second village, where more than half of the populace contributed to the industry, claimed a yearly income of 5000 *yen*. Both villages supported active unions that collected assessments from the producer-members to defray expenses for building or repairing kilns and workshops.

In summary, the Government-General's report provides an indication of the variability (and especially the differences in equipment and techniques) prevailing within the domestic ceramics industry during the first quarter of the present century. Some of the data, provided by untrained observers or those with experience only in Japanese production methods, are difficult to evaluate. What seems clear, however, is that there was no professional industry as such in the 1920s; indeed, most of the producers mentioned—including those at the former royal porcelain kilns—were farmer-artisans organized, usually, into family-structured work groups.

Quite apart from the empirical investigations of Torii Ryuzō and the colonial authorities are the works of the celebrated *mingei* (“folk crafts”) scholars Hamada Shōji, Kawai Kanjirō, and Yanagi Sōetsu. During the 1920s and 1930s, these three men looked upon Korea as fertile ground for their own intellectual and collecting pursuits. Hamada, Kawai, and Yanagi traveled several times together on the

peninsula, and one such excursion is detailed in a biography written by Hamada's friend and fellow artist, Bernard Leach.⁶⁵

Leach's engaging narrative concerns the trio's efforts to locate the maker of a wine bowl purchased in a Korean market. Their journey eventually took them to a workshop that specialized in the production of small white and black tableware. Only the upper half of the seven- or eight-chamber kiln at the site was being fired—a wasteful practice to Hamada's thinking but a practical one for the potters, who said that the lower half had been confiscated by a money lender to whom they were in debt. Further indicative of the impecunious circumstances of the potters is Hamada's remark: "In Korea, we had heard that farmers settle the best land, while potters and their families congregate on the top of the hills, where the soil is poor."⁶⁶

Yanagi, for his part, has chosen in several of his writings to expound on the natural "unselfconsciousness" of the Korean craftsman. Contrasting what he calls the "analytical self-consciousness" of many of his fellow countrymen with the freedom found in Korean work, he says: "In modern art, as everyone knows, the beauty of deformity is very often emphasized, insisted upon. But how different is Korean deformity. The former is produced deliberately, the latter naturally. Korean work is merely the natural result of the artisan's state of mind, which is free from dualistic man-made rules . . . Here lies buried the mystery of the endless beauty of the Korean artisan's work. He simply makes what he wants, without pretension." Of the Korean potter, Yanagi observes:

One who has had the chance to visit a Korean potter's shed may notice that the wheel used for throwing pots is never exactly true. Sometimes it is so crudely mounted that it is not even horizontal. The asymmetrical nature of Korean pots results in part, therefore, from the uneven movement of the wheel. But we must understand that Koreans do not make such wheels because they like unevenness and dislike evenness. Rather they simply construct their wheels in a happy-go-lucky way. This unevenness, then, is but a natural outcome of the untrammelled state of their minds. They live just as circumstances permit, without any conception of artificiality. Of course if the wheel is canted too much, they may correct it to some extent, but even then it will not be

precise. They are scarcely troubled by accuracy or inaccuracy, for in their world these qualities are not yet differentiated. This state of mind is the source from which flows the beauty of Korean pots.⁶⁷

Modern Investigations

Research on *onggi* has been ongoing in Korea since around 1970 and has resulted in the accumulation of a modest literature on the subject.⁶⁸ A portion of this research has been motivated by practical concerns, involving the analysis and testing of glaze materials to determine their safe application on foodwares. More recently, Korean scholars have produced several excellent technical and historical studies of the industry that pay careful attention to relic nomenclatures, regional differences in jar types and decorative embellishments, and kiln and worksite architecture. The reader is directed to the Bibliography for specific citations.

The Ware

The term *onggi*, in the normal sense, encompasses an inventory of Korean food storage jars manufactured from a dark, relatively coarse alluvial clay that fires to a red color at temperatures ranging upwards of 1200° C. An opaque brown wood-ash glaze further distinguishes the familiar containers one sees clustered about courtyards throughout the country. More resistant to classification are a number of specialized kitchen and table wares, which are functionally or physically at variance with the storage jars. These include glazed stoneware mixing basins and spouted pouring vessels, on the one hand, and low-fired earthenware cooking pots, on the other. Although this problem is rather minor, scholars who class these latter vessels with the storage forms are usually careful to distinguish between stoneware and earthenware sub-varieties (called *oji kŭrūt* and *chil kŭrūt*, respectively). This report defines *onggi* in the broad sense. Few would argue that all of these pedestrian wares are more closely akin to one another than they are to either celadon (*ch'ŏngja*, literally "blue porcelain") or the various grades of porcelain (*paekcha* and *sagi*).¹ As the balance of this chapter is primarily descriptive of foodwares in a domestic context (Figure 7), the reader will benefit from a brief introduction to Korean culinary habits.

Regional differences in the Korean diet are rather pronounced, although elements of a national cuisine can be readily identified. As a rule, Koreans eat three meals daily. At the heart of virtually every meal is boiled rice, which is sometimes extended with other cereals like barley and millet. (During the historic period, it bears mentioning, members of the upper class counted as a sign of their privileged station the absence of barley in their diet, while peasants, especially in the early spring when their rice supply had been exhausted, ate only the debased cereal. This prejudice persists to an extent, although the President of the Republic has recently made a case for the health and conservation benefits of mixed cereals.) This staple is usually accompanied by either a soup (*kuk*) or a stew (*tchige*), plus assorted vegetable

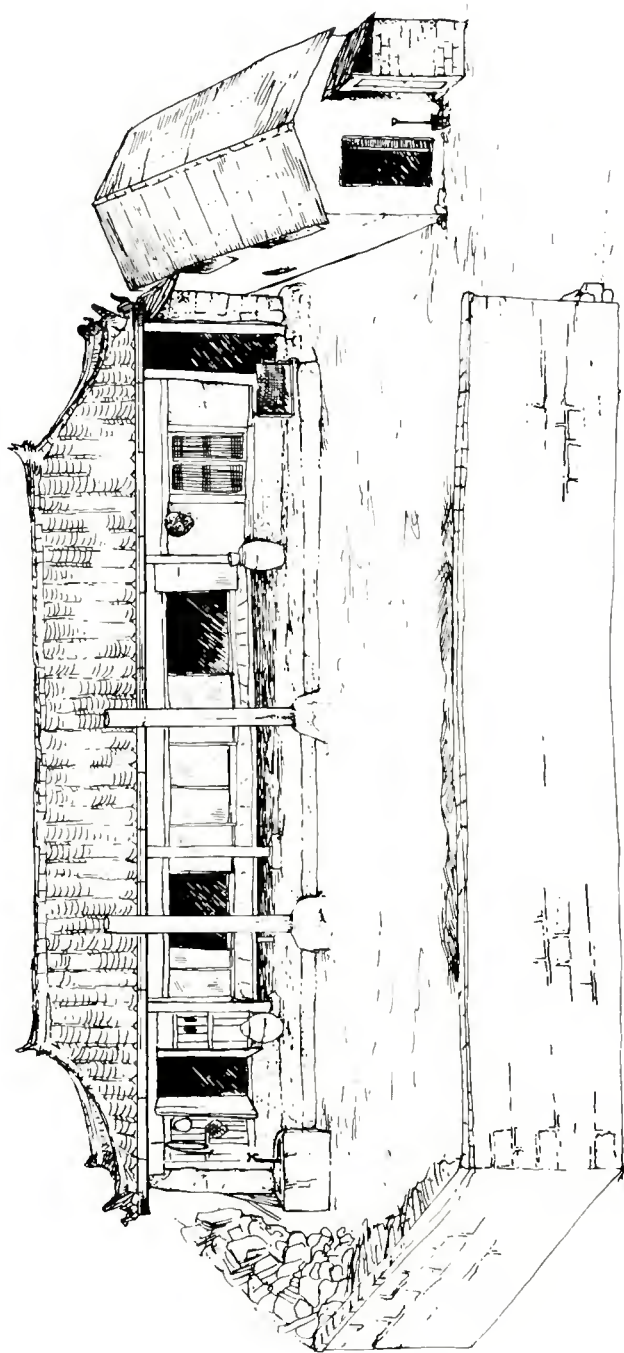
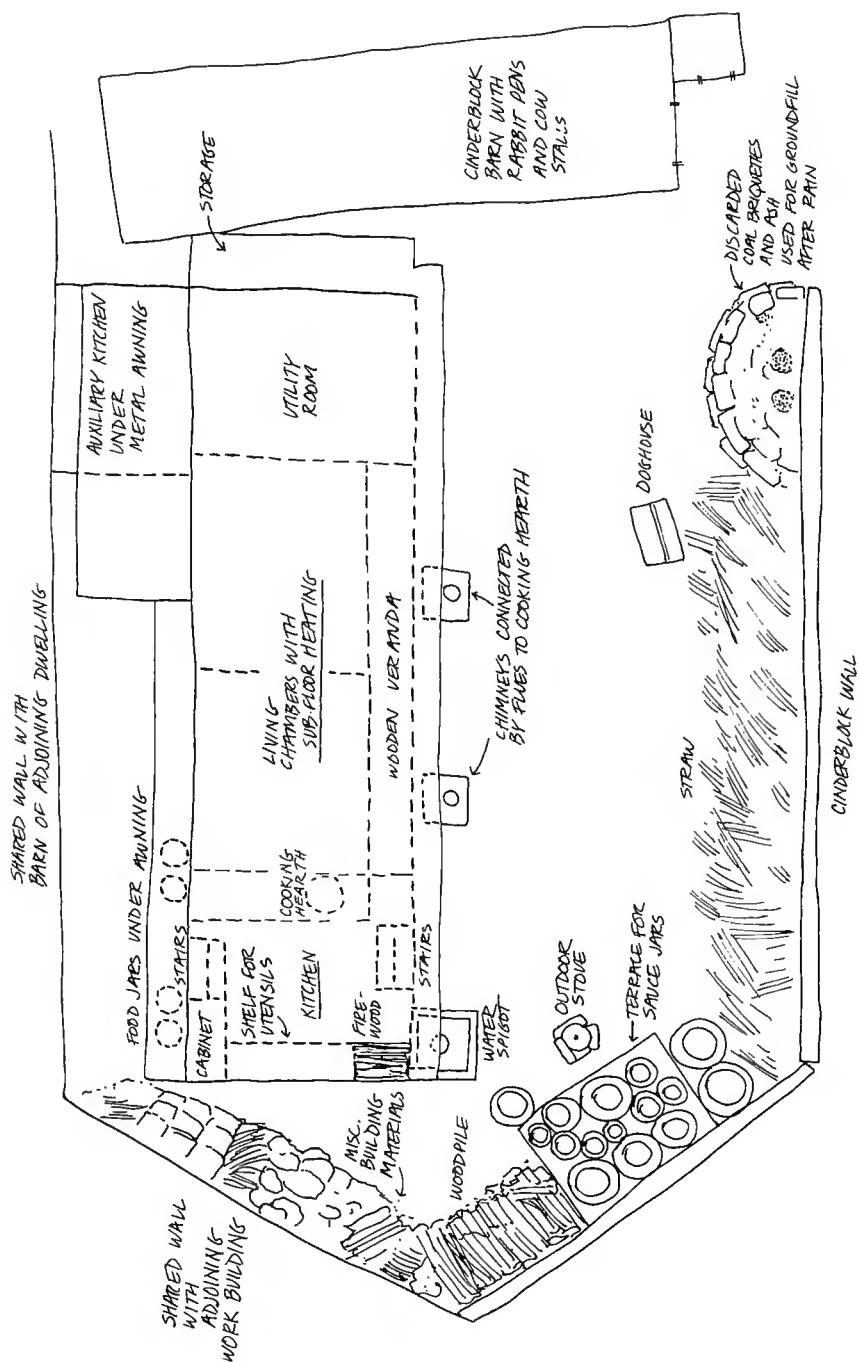


Figure 7. Potter's dwelling near Kyōngju, N. Kyōngsang Province. The floor plan of the traditional Korean house varies by region, the version shown here (facing page) with a kitchen, two combination sleeping/living rooms, and a storage room, being perhaps the simplest. Surrounding the dwelling is a walled courtyard and a cinderblock barn—both considered parts of the “house.” (Illustration by Daphne Shuttleworth.)



side dishes, both scalded (*namul*) and pickled (*kimch'i*). Soups are served most often during cold weather and have as their main ingredients seaweed, bean sprouts, spinach, pickled vegetables, or sliced beef; these are seasoned with some combination of diced green onions, red and black pepper, garlic, sesame oil, and toasted sesame seeds. Stews differ from soup mainly in having more substantial ingredients (fermented soy bean paste and seafood, for example) and less broth.

Formerly, red meat appeared on Korean tables only infrequently, except in the chambers of the well-to-do. Vegetables supplemented by highly-seasoned poultry, seafoods, and dishes made with internal organs still predominate; on special occasions, however, roast beef or pork marinated in soy sauce and honey are served. Normal beverages with meals include barley tea or water boiled with the scorched leavings in the bottom of the rice pot. Desserts, as such, are served mostly on special occasions, but Koreans partake of a wide variety of snack foods, including fruits, steamed white potatoes, chestnuts, and roasted corn ears.

Storage Containers

Ceramic food jars have been, until very recently, part of the material inventory of virtually every household in the Republic. These egg-shaped containers vary little in profile from one region to the next, except that those made for city use, as a consequence of restricted storage space, are apt to be taller and of less generous proportions than their rural counterparts. Individually, the jars are called, with some caprice, *hangari*, *tanji*, and *tok*. Most attempts at taxonomic refinement, in fact, are doomed to the same degree of imprecision as would occur should an American attempt to distinguish among various "pots" and "pans." In the main, however, the ware assorts into two categories: large jars destined for use outdoors and smaller versions kept indoors in the kitchen or in an adjoining storage room. Informants in Seoul called the former *tok* and *hangari*, depending on their size, and the latter *tanji*.

The following list is a composite of jar names, with their appropriate uses, given by individuals in the capital. Soy sauce, for example, is stored in quantity throughout the year in large and medium size

outdoor receptacles (*kanjang tok* and *kanjang hangari*); as needed, the liquid is transferred to a small spouted kitchen form (*kanjang tanji*). Winter cabbage *kimch'i* is also preserved outdoors in the larger containers, while a radish version is kept indoors along with condiments like vinegar, honey, table salt, and sesame seeds. (Not appearing in the list is *sagi tanji*, or "porcelain *tanji*," which denotes a homologous item of whiteware.)

liquor:	<i>sul tok</i>	<i>sul hangari</i>	
water:	<i>mul tok</i>	<i>mul hangari</i>	<i>mul tanji</i>
soy sauce:	<i>kanjang tok</i>	<i>kanjang hangari</i>	<i>kanjang tanji</i>
<i>kimch'i</i> :	<i>kimch'i tok</i>	<i>kimch'i hangari</i>	<i>kimch'i tanji</i> (radish <i>kimch'i</i>)
rice:	<i>ssal tok</i>		<i>ssal tanji</i>
salt:	<i>sogŭm tok</i> (rock salt)		<i>sogŭm tanji</i> (table salt)
soy paste:	<i>toenjang tok</i>		<i>toenjang tanji</i>
red pepper paste:		<i>koch'ujang hangari</i>	<i>koch'ujang tanji</i>
vinegar:			<i>ch'o tanji</i>
honey:			<i>kkul tanji</i>
salted sesame seeds:			<i>kkaesogŭm tanji</i>
mixed seasonings:			<i>yangnyŏm tanji</i>

To better understand how the storage jars are employed, it serves well to describe the preparation of four diet staples: soy sauce, soybean paste, red pepper paste, and *kimch'i*. The first of these, reddish black soy sauce (*kanjang*), is made from yellow soy beans boiled four or five hours, then mashed into a paste called *meju*. Today yeast is added to the *meju*; earlier it was molded into large rectangles or truncated cones, which were dried outdoors on rice straw mats, then hung from the house rafters to leaven naturally over several months. In the springtime, the mold-covered *meju* is broken up into smaller chunks and submerged in a brine-filled *tok* positioned on an architectural feature of the outdoor living space called a *changdoktae* ("place for sauce jars"). This might be a stone or concrete terrace built up in a sunny part of a dwelling's inner courtyard or, in the city, an apartment balcony or rooftop (Figures 8 and 9).

Over a period of two or three months, the mistress of the house checks her jars, taking care to see that their contents receive only the



Figure 8. *Rooftop terrace (changdoktae) for sauce jars, Seoul. (Photo by Ralph Rinzler, 1971.)*

proper amount of sunlight. Then, in May or June, she boils the clear, dark liquid in a cauldron and replaces it in still other jars along with red peppers and chunks of wood charcoal, which absorb dirt and inhibit strong odors. The solid moldy matter that floats to the top is skimmed off, then crushed, salted, and kneaded into a paste (*toenjang*), which constitutes a second major soy by-product. For most Koreans the making of soy sauce and soy paste is a yearly activity, although an affluent family might prepare a larger supply, because the sauce is believed to stay fresh up to three years with reboiling and is even said to improve with age.

A second staple is the hot seasoning *koch'ujang*. In autumn, red chili peppers are harvested and sun-dried for a week or more. Then the peppers are split open and left in the sun a few days longer, after which the seeds are dislodged with a pole. What remains is pulverized in a mortar, then sifted through a pine-root sieve. Simultaneously (or during the making of soy sauce), a *meju* ring is prepared and secreted away in a dark corner of the house to ripen. In the springtime, the red pepper powder and the pulverized *meju* are combined with rice paste (*ch'apssalchuk*), salt, and sugar. The *koch'ujang* is not cooked, but is left to ferment in a storage jar for three or four months.



Figure 9. Rural version of changdoktae at Kaya village, Kyōnggi Province. (Photo by Ralph Rinzler, 1972.)

Pickled *kimch'i* is so much the quintessential Korean food that Western visitors often confuse containers reserved for this staple with sauce and grain jars—calling all three “*kimch'i* jars.” In fact, the true *kimch'i* containers, except in the southernmost provinces, which enjoy relatively mild winters, are seldom positioned on the *changdoktae*, but are buried in the ground or kept in basements and kitchen storage rooms. Although space does not permit an extended dissertation on *kimch'i* in all its many varieties, we can generalize to say that the so-called “winter” versions are the most important, inasmuch as they provide essential vegetable nutrition during a part of the year when fresh produce is lacking.

Winter *kimch'i* is prepared with the soy products in the fall—usually during a period in mid-to-late November referred to as *kimjang ch'öl* (“*kimch'i*-making season”). Not a holiday as such, *kimjang ch'öl* is nevertheless recognized to the extent that some large business firms in Seoul give bonuses to their employees to help defray the cost of their winter stores. During this interval, small groups of relatives and neighbors work together in cooperative fashion. Under normal circumstances, the oldest, most experienced member of the group will supervise the proceedings, as she is best able to judge proportions. Working on a wooden house veranda (Figure 10), the women spend the first two days preparing the cabbages and making the seasonings. They also use the occasion to share information about their families and social activities.

Most Koreans today buy the elongated cabbages needed for winter *kimch'i* at the local market. A single cabbage at the time of preparation will weigh as much as 3.5 kilograms; a family of four might consume as many as 40 or 50 over the course of a winter. Before the cabbages are washed, they are sliced in half, then soaked



Figure 10. Preparation of *kimch'i*. The last two decades have seen a decline in the use of ceramic kitchen utensils (note metal basins and bowls). *Kimch'i*, however, is still preserved in the traditional containers. (Photo by Ralph Rinzler, 1972.)

overnight in brine to “kill” their freshness. Meanwhile, a large white radish (*mu*)—which also forms the principal component of a second type of winter *kimch'i*—is shredded into strips and combined with chopped scallions, red peppers, ginger, garlic, leeks, and other seasonings, which, on the third day, are folded between the wilted cabbage leaves. Fancy varieties of cabbage *kimch'i* take additions like walnuts, pears, and various seafoods, including salted anchovies and oysters. (Spring and summer *kimch'i* varieties, which tend to be more “watery” than their cold weather counterparts, have similar ingredients, with the omission, for obvious reasons, of fish or other seafoods. Indeed, because of spoilage, these versions are made in smaller quantities and are usually kept no longer than a fortnight.)

After the cabbage leaves are prepared with their seasonings, they are packed into a *kimch'i tok* (or *kimch'i hangari*) and weighted down with large stones. Then the *tok* is covered with a ceramic lid and thick coils of rice straw. As indicated, pickle jars are not placed on the *changdoktae* but are buried in the ground through the winter, with only their lids exposed so that the ongoing process of anaerobic fermentation is not impeded (Figures 11 and 12). Usually three weeks to a month will pass before the *kimch'i* in the buried *tok* begins to acquire its characteristic taste and smell.

New containers—plastic mixing basins and aluminum storage canisters (*kimch'i t'ong*)—began to appear in cramped urban dwellings during the 1960s along with small electric refrigerators. Some of the older (or otherwise more conservative) housewives resisted this trend, which reached a peak after 1975, but many of the young, relatively affluent city-dwellers embraced the new containers enthusiastically. Most still do, even though a number now hold to the conviction that *kimch'i* stays fresher and tastes better when prepared in the old manner. It is therefore not uncommon today that a family will refrigerate some of its food in metal containers and keep the rest outdoors in ceramic jars.

In times past, the preparation of staple foods would have been associated with various ritual observances.² White gowns for purity were worn by the women preparing the foodstuffs, and individuals who had been handling livestock were (and, to an extent, are still) cautioned not to contaminate the *changdoktae* by their presence—a prohibition that, not unexpectedly, extended to menstruating women. To further protect the food supply from some contaminating influence, housewives strung garlands of charcoal and whole red peppers



Figure 11. *Straw hut covers buried kimch'i jars, Kyōnggi Province. Note proximity of hut to changdoktae. (Photo by Ralph Rinzler, 1982.)*



Figure 12. *The exposed lids of the kimch'i jars permit access throughout the winter months. (Photo by Ralph Rinzler, 1982.)*

about the necks of the sauce jars. This was done in much the same manner that they were careful to hang a similar rice straw strand (twisted in a left-handed, or “reverse” twist) between the gateposts at the birth of a child.³ A woman’s sock was also pasted to a jar for luck.

Harvested rice, to cite another example, was stored briefly in a small courtyard granary, then secured through the winter in either a wooden chest (situated inside the dwelling) or in a *ssal tok*. As the days wore on, the contents of the chest or jar were drawn down until only a last bit of rice remained. This, it is said, was never removed from the container lest by such action famine or other calamity be visited on the family. Quite clearly, such practices and beliefs relate to the marginal livelihood pursued by rural Koreans well into the present century, when the loss of a winter food staple through accident or spoilage had catastrophic results. Memories of prolonged winters that brought hunger and even starvation are not far removed from the minds of many Koreans today.

A discussion of storage containers would be incomplete without mentioning one other important form that has only recently passed from general usage. This is the *tongi*—a cylindrical container with slightly flaring or curved sides, a wide round mouth, and two handles. Every rural household at one time had a *mul tongi* for transporting water from a village well—which might itself have had a ceramic bucket called a *turebak*—to a wood-covered storage jar (*mul tok*). The flat bottom of the *tongi* was balanced on the housewife’s head, supported by a braided ring of rice straw (Figure 13). Today, the *mul tongi* has been replaced as a water conveyance by metal buckets (*yang tongi*, literally “Western-style *tongi*”) or red plastic basins (*mul kürüt*). (The *mul tok*, on the other hand, still survives in many rural areas. Even though most dwellings now have piped-in water—evidenced by outdoor pumps and spigots—the unpredictable nature of the public water supply has conditioned residents to protect themselves against periodic water stoppages.) Other versions of the *tongi* include the *saeujöt tongi* (or *saeujöt tok*) used to store and transport salted shrimp, and the *k’ongnamul tongi* for sprouting beans (Figures 14 and 15). Freshly cultivated beans are placed in the latter container (which differs from its companion wares in having a bottom drain hole), then are covered with ash and watered daily until they sprout.

A more exhaustive study than this one would isolate regional variations in covers, rim styles, handles, and decorative embellishments.⁴ Regarding the latter, the most common designs today are



Figure 13. *Korean woman bearing a mul t'ongi on her head, ca. 1900.*
(Courtesy Library of Congress, Carpenter Collection no. 25258.)

encircling wavy and straight bands, either inscribed into the surface of the vessel or formed in relief. As a rule, the potters call the wavy line *yong tti* or *yong kŭrim* (“dragon line” or “dragon picture”)⁵ and the rings *son tti* (“hand line”), or simply *tti* (“line”). Other embellishments include stamped rosettes or roller-applied strings of tiny checks and diamonds and, in some regions, superimposed glaze drawings. By wiping away the wet surface with the fingertips immediately after immersing the vessel in the glaze tank, designs having something of



Figure 14. Saeujöt tok (or t'ongi) for preserving salted fish, Seoul. (Photo by Ralph Rinzler, 1971.)



Figure 15. K'ongnamul t'ongi for sprouting beans, Kurye, S. Ch'ölla Province. Note wire repair to crock at right. (Photo by Ralph Rinzler, 1972.)

the free appearance of calligraphy are created. Until the 1970s these drawings included stylized representations of birds, butterflies, and flowering plants. In 1981, the most typical of those remaining was the orchid plant (*nanch'o*), found on pottery in Kyönggi and the Ch'ungch'öng provinces. Potters in the Ch'ölla and Kyöngsang provinces professed a disliking for hand drawings, explaining that they occupied too much of a glazer's time and also tended to collect dirt. Nevertheless, vessels formerly made in these areas often bore series of single and paired lunates, or "bamboo leaves," between the concentric rings.⁶

Cooking and Kitchen Ware

The traditional Korean kitchen is a narrow, smoke-darkened passageway set down a step or two below ground level to accommodate a

stone or concrete cooking platform (*agungi*) (Figure 16). Mud-lined stone flues connect the hearth with one or two chimneys at the dwelling's opposite end, allowing smoke and hot air to pass under the raised floors of the intervening rooms. As a result, the cooking hearth functions as the house's central heating system. Called *ondol*, this system was probably introduced to the Korean peninsula from northern China before the Common Era, along with wet rice agriculture and bronze and iron smelting.⁷

Originally, cooking platforms were fueled with timber, pine brush, and straw. With the disappearance of these fuels, Koreans adopted as a substitute *yōnt'an*, a coal-and-clay briquette obtained in the marketplace. Korean housewives still lay in large quantities of *yōnt'an* each fall along with their winter stores of rice, soy sauce, and *kimch'i*. The cylindrical briquette, which has numerous perforations through its length to control combustion, is set into a well in the top of the cooking hearth and is replaced two or three times daily. When a briquette is half-spent, another is placed atop it.



Figure 16. Korean kitchen, ca. 1900. Note the variety of iron, stone, ceramic, wood, and gourd cooking and food preparation utensils. (Courtesy Library of Congress, Carpenter Collection no. 25259.)

Generally speaking, the cooking fire is sufficient to warm the house, because the sub-floor flues radiate heat for several hours after a meal is finished. Indeed, the skillful housewife is said to be one who can keep her dwelling comfortable at all hours of the day and night simply by tending her stove. Some homeowners, however, maintain extra hearths (without the cooking facilities) in the outlying rooms or move iron or ceramic braziers (*hwaro*) into the bed chambers during the winter months. Not stoves as such, these heaters are nevertheless used to roast snack foods, such as chestnuts and sweet potatoes.⁸ Charles Dallet doubtless refers to a *hwaro* in the following excerpt from his 1874 *History*: "Most families preciously conserve the fire in their house so as never to let it go out. If such a mischance were to occur, it would be the sign and the cause of great misfortune for the family. In order to avoid this, every day after the morning or evening meal has been prepared they put what is left of the hot coals and cinders in an earthenware vase shaped like a foot-warmer, and all necessary precautions are taken to conserve the spark which will serve to relight the fire the next time." To illustrate his point, Dallet offers this cautionary tale:

One day a noble who was entertaining a large company in his parlor saw a slave go out with a wisp of straw in his hand just at the time when the meal should have been started. "Where are you going?" he cried to him. "I'm going next door to get a light," replied the slave. "There is no more fire anywhere in the house." "Impossible," said his master turning pale, and leaving his guests he at once ran to the vases and into the various chambers where the fire was kept. On his knees, and tears in his eyes, he turned over the ashes with a feverish attention. At last he caught sight of a faint glow. He blew on it and succeeded in lighting a twig. "Victory!" he cried as he returned to the parlor, "the destiny of my race is not yet at its end. I have rekindled the fire which my ancestors have faithfully handed down over ten generations, and I can bequeath it to my descendants in my turn."⁹

The top surface of the cooking platform has two or three openings to accommodate iron cauldrons (*sot*) of varying sizes; each cauldron has a medial flange to prevent its falling into the firepit below. In rural homes, the largest basin is used to heat water for laundry and to

cook a mush of boiled beans and chopped straw for the family's draft animals. The smaller ones are reserved for cooking vegetables and rice. Cauldrons are never carried to the dining table; rather, food is transferred from them to other containers and the latter are taken into the adjoining chamber.

As a rule, the cauldrons are made of iron, although carved soapstone versions (*koptol sot*) are used for preparing medicinal foods like ginseng root, garlic chicken, and dog soup, which benefit from long simmering.¹⁰ Ceramic cauldrons are perhaps the least common; however a stew of fermented soybean paste is sometimes cooked in a small example (*toenjang sot*) manufactured from a low-firing refractory clay called *koryŏngt'o*, which is more resistant to shattering than dense, homogenous stoneware bodies (*chŏmt'o*) (Figure 17).¹¹ Producers of this sort of ware—which is fired a relatively brief 24 hours to a maximum temperature of 700°–800° C—are now found mostly in South Kyŏngsang Province where the *koryŏngt'o* is mined.

Two specialized cooking vessels are the steamer (*siru*) and the herbal medicine boiler (*yak t'anggi*). The first-named, also called *tŏk siru* ("rice cake *siru*"), finds service during auspicious occasions, such as the New Year, the harvest moon festival, elders' birthdays, ancestor



Figure 17. Small ceramic cauldron (*toenjang sot*) for preparing soy paste, Kyŏngju, N. Kyŏngsang Province. This and other cooking forms are manufactured from a low-firing earthenware clay called *koryŏngt'o*. (Photo by Ralph Rinzler, 1972.)

rites, and funerals, when a kind of sweet rice cake is prepared. Through the centuries, the *siru* has acquired about it a rich folklore, as the following story—part of a shamanistic rite from Cheju Island—demonstrates:

Once upon a time there lived Gentleman Nam. He had two wives: the first from Tojo country and the second a daughter of Hu-il in O-dong country. The first wife was as virtuous and kind as the concubine was frivolous and treacherous. At length, the concubine succeeded in tricking the first wife and drowned her in a pond. For this deed, she herself later became a toilet ghost.

Seven sons of Gentleman Nam by the drowned wife all ascended to heaven and were transformed into the constellation of the Great Bear. They asked 3000 court ladies and faeries to accompany them to earth to dip all of the water from the pond. Locating the bones of their dead mother, the seven sons interred them in a grave. They then made a *siru* from the earth where the bones had previously lain. When the *siru* was finished each son made a hole in its bottom, saying, "Mother, you have long suffered in cold water. From now on we want you to be a goddess of the warm kitchen and enjoy warm cakes with this *siru*."¹²

To prepare the steamer for the making of rice cakes, five or more bottom holes (Figure 18) are covered with wafer-thin potato slices.¹³ These are then overlain with alternating layers of glutinous rice powder and crushed reddish-brown beans. Once the *siru* is filled, a coil of dough is wrapped around its base to seal in the steam, and the top is covered with a kettle or something of similar size. Then the *siru*—its inside lacking a glaze so that moisture is absorbed—is placed atop a water boiler. (Fancy half-moon cakes are made in like fashion, except these are stuffed with a mixture of sugar and either sesame seeds or crushed beans and interlayered with pine needles, which give the cakes a special aroma.) Removed from the steamer, the rice is pounded and kneaded with a mallet, then formed into patties. Using either a wooden or ceramic stamp (*ttök sal*), the cakes are impressed with floral and geometric designs as well as the popular "long life," "happiness," and "good fortune" symbols.

The *yak t'anggi* or *yak t'anggan* ("medicine boiling receptacle"), like the *toenjang sot*, is made of earthenware clay and is further

distinguished by a long, sturdy handle, which allows it to be easily lifted from its heating element (Figure 19). In preparing to use the boiler, a patient first obtains the necessary ingredients from an herbalist, who diagnoses the illness, chooses the proper combination of



Figure 18. *Rice cake steamer (siru), Taejŏn, S. Ch'ungch'ŏng Province. Larger versions have as many as 13 bottom openings. (Photo by Ralph Rinzler, 1981.)*



Figure 19. *Herbal medicine boiler (yak t'anggi or yak t'anggwŏn), Kyŏngju, N. Kyŏngsang Province. (Photo by Ralph Rinzler, 1972.)*

remedies from his pharmacopoeia, then wraps each separately in mulberry paper. At home, the patient squeezes the contents of the envelopes into the *yak t'anggi*, then wraps the paper over the opening.¹⁴ A *yak t'anggi* today might be heated over a kerosene or propane stove; formerly, however, it was placed atop a *hwadok*, a small iron or earthenware stove buried in the kitchen floor or in the courtyard



Figure 20. Outdoor cooking stove (*yönt'an t'ong*), Taejŏn, S. Ch'ungch'ŏng Province. The stove, which is fueled with coal briquettes (*yönt'an*), is buried in the ground, leaving top and air intake exposed. (Photo by Ralph Rinzler, 1972.)

(Figure 20). Shaped cylindrically to accommodate *yŏnt'an* briquettes, the *hwadok* (which, for reasons of economy, is still employed during the lengthy boiling of soy sauce) substituted for the kitchen hearth in summer, when one would not normally wish to bring warmth into the dwelling.

Additional kitchenware items include large flat-bottomed basins (*chabaegi* or simply *sabal*, “bowl”) for grinding barley and rice, preparing *kimch'i*, and washing dishes. The grinding basin (*porissal chabaegi*) usually has a textured or “pecked” bottom—repeated on an associated pestle (*haktol*)—so that the cereals will not stick during processing (Figure 21).¹⁵ In the southern provinces, storage jar lids (*sorae* or *soraegi*) are manufactured to a deep profile with inverted handles so that they can be used equally as mixing basins (Figure 22). Other specialized food preparation wares include large and small pouring vessels (*ch'o pyŏng* and *kanjang tanji*) for white vinegar and soy sauce (Figures 23 and 24), respectively, and plate-like graters (*kangp'an*) for shredding garlic.



Figure 21. Cereal basin (*porissal chabaegi*) for grinding barley and rice, Taejŏn, S. Ch'ungch'ŏng Province. The textured surface of the pestle (*haktol*) is repeated on the basin's interior. (Photo by Ralph Rinzler, 1972.)



Figure 22. Large rice or wine jars near Kyōngju, N. Kyōngsang Province. Note the punctuated concentric ring decorations and the deep basin-like lids with their inverted handles, attributes of jars produced in the Chōlla and Kyōngsang provinces. (Photo by Ralph Rinzler, 1972.)



Figure 23. Vinegar bottle (ch'o pyöng), Kurye, S. Chölla Province. The leaf resist decoration is made by fixing a real leaf to the jar during glazing. (Photo by Ralph Rinzler, 1981.)



Figure 24. Kitchen container (kanjang tanji) for soy sauce, Taejön, S. Ch'ungch'öng Province. The rolled pour spout is analogous to the leaf-shaped spouts on celadon wares of the Koryö dynasty. (Photo by Ralph Rinzler, 1971.)

Serving and Table Ware

As there is no customary dining chamber in the traditional Korean dwelling, meals are carried on separate low tables to the room where a person wishes to eat. An etiquette surrounds all aspects of the meal, specifying the placement of wares, the order of serving, the positioning of hands during serving, etc. We know something of the table settings during the late Yi period because these were discussed in missionary and travel accounts.¹⁶ Dallet recorded in 1874 that “table ware, which is made of coarse porcelain or copper, consists only in bowls of different sizes, a pair of chopsticks in the Chinese manner and a copper spoon.”¹⁷ Two decades later, Bishop, in one of the farm villages of the lower Han River, observed: “Rice is the staple of diet, and is served in a great bowl, but besides this, there are seldom fewer than five or six glazed earthenware vessels containing savoury, or rather tasty, condiments. Chop-sticks and small flattish spoons of horn or base metal are used for eating.”¹⁸

That Dallet’s correspondent found “copper” on ordinary Korean tables this early is not without explanation. We know now that, while brass bowls, spoons, and chopsticks were initially the possession of a privileged few, the rise of independent producers and merchandisers in the late eighteenth century brought such goods for the first time into peasant households. Porcelain of indifferent quality also enjoyed widespread use during this period, although, as Bishop’s account indicates, did not displace *onggi* in the poorer households.

To digress slightly, it is interesting to note that brassware in its turn suffered an eclipse that began during World War II, when many table sets were confiscated by the Japanese. The process was finished around 1972 as government reformers allegedly sought to discourage the use of brassware in family ancestor rites—ostensibly because of the amount of time wasted polishing the various cups and bowls. Individual Koreans, it seems, were urged to exchange their brass dinner sets, including many engraved heirlooms, at village markets for stainless steel substitutes; the originals were then sold for scrap. As a result, serviceable, efficient stainless steel or porcelain rice bowls are today used everywhere. In addition to the traditional lidded containers (*pap chubal*), many families also retain a second set of Japanese-style lidless rice bowls (*pap konggi*) for informal use.



Figure 25. *Crude ceramic wine kettle (chujönja), Kyōnggi Province. Table forms during the modern period are usually metal or porcelain. (Photo by Ralph Rinzler, 1982.)*

Associated with the rice containers are somewhat shallower soup bowls, generally called *taejöp*, but also *kuk ttugari*, *kuk kūrūt*, or several regional names. While coarse ceramic versions of the rice and soup bowls (which, because they form a set, are together referred to as *chubal-daejöp*) are comparatively rare except in rural areas and in some restaurants, a slightly larger utility bowl (*ttukpaegi*) is still fairly common in many Korean households. Stew is cooked in this earthenware vessel atop a portable cooking stove (*hwadök*) rather than the kitchen hearth; it is then conveyed to the dinner table in the cook's apron. Completing the table setting are assorted porcelain items: water bowls (*mul kūrūt*); wine kettles (Figure 25), bottles, and cups (*chujönja*, *sul pyōng*, and *sul chan*); and tiny dishes and plates (*chongji* and *chōpsi*) for holding liquid condiments and dried vegetable seasonings.¹⁹

Ware Used in Preparing Fermented Beverages

While beer or imported Japanese wines have assumed as much importance as domestic alcoholic beverages in the more cosmopolitan areas of Korea, they are relative luxuries in the rural countryside. To a large extent, village men still end their workday in the environs of the neighborhood winehouse, sharing bowls of native rice wine or small glasses of clear distilled liquor, while partaking simultaneously of various vegetable appetizers and salted fish. Rice wine is also served on important ceremonial occasions, like weddings, birthdays, and funerals.

All of the domestic liquors are products of the same manufacturing process, and so can be described in sequential fashion. Preparation begins when rice is soaked overnight in water; thereafter it is steamed in a *siru* and dried. Simultaneously, a quantity of hulled millet is ground to a flour and mixed with powdered yeast and water to create a paste called *nuruk*. The rice and millet paste are combined in a 3 : 1 proportion in a water-filled *tok*, which is then covered with blankets and stored in a warm part of the house. In three or four days, the mixture will have fermented slightly; in a week it will have ripened enough for drinking.

Before it is fit to drink, however, the fermented liquid is passed several times through a strainer. The first straining produces a limpid solution called *ch'ongju* or *yakchu*. The remaining sediment is squeezed a second time through the strainer to produce milky-white *makkölli* or *t'akchu*, the coarsest and most popular of the rice wines. *Ch'ongju* is served in small cups, whereas *makkölli* is drunk in metal or porcelain bowls, usually at room temperature. In the era of the self-sufficient farming village, individual households preserved large quantities of the rice wine in an enormous *sul tok*, transporting it about in smaller portable containers, including a "rice bale"-shaped *sul changgun* and a cylindrical canteen called a *pyölchubak*. Today, *makkölli* is pre-packaged in plastic bottles.

Finally, the sediments left over from the preparation of *ch'ongju* and *makkölli* are distilled in an unusual apparatus (*sojuthori*) composed

typically of two ceramic jars joined top to bottom. The sediment is boiled until beads of clear liquid condense in the top of the still and flow down through a spout into a waiting storage jar. Norbert Weber described such an apparatus in 1911 (by which time *soju* production was strictly regulated by the Japanese colonial authorities).

In the neighborhood of this Thab [probably *t'ap*, "stupa"] a gigantic tree spreads its wide branches . . . Beneath the tree there is a large draw-well, the public well, enclosed by rows of stone slabs. Immediately adjacent to it is a kiln for distilling *schnaps*. It was built for these townfolk's general use who, to be sure, would like to have *schnaps* in the home, but would not distill a quantity large enough to warrant maintaining a private kiln—also proof that we are in a rice growing plain where production widely exceeds the requirements of the community.

Through our innkeeper's mediation, we gained entry to a house in whose courtyard *schnaps* has just been produced. At first the housewife views our coming with anxiety. With shy concern, she looks upon my photographic equipment, suspecting perhaps that we are attached to the Japanese tax commission and intend to add yet another surcharge to the *schnaps*. Presently she is calmed; we wish nothing but to see how the whiskey is produced. We do not even wish to taste it, since we are already familiar with its sharp bite.

The three-meter kiln is embedded about half-a-meter in the ground and projects upward another meter. It is made of clay. A man sits at one end and constantly pokes dried rice in the low stoke hole. Directly above the lively, flickering blaze, a mash of rice and millet bubbles in a meter-high pot. The pot itself is covered with a copper kettle atop which is a trough filled with cooling water. The kettle is positioned atop the lower pot to absorb the steam, which condenses into beads that drip down the inside kettle wall and collect in a channel. Crystal clear brandy passes through a narrow pipe into a stout earthen pitcher. At the far end of the kiln, a chimney projects two meters into the air. Around and about is a multitude of tall jars, their somewhat repugnant contents waiting to be metamorphosed into alcohol.²⁰

Ritual Uses for Onggi

One of the more unusual vessels in our survey is a small water container bearing two handles, called *chōngsu tanji* (“pure water bowl”) (Figure 26).²¹ The esoteric significance in this name is explicated in the following event that occurs daily in some Korean homes. The mistress of the house rises before dawn, cleanses herself and dons a white gown, then repairs to a table altar set at the eastern end of her dwelling. (To position the altar to the west, where the sun sets and day ends, would hazard ill, just as would sleeping with one’s head facing that direction.) Lighting a candle, she takes her *chōngsu tanji* to the well to fill. Returning with her “gift” of pure water held in two hands to show reverence to the departed spirits, she then offers up a prayer that some wish will be fulfilled—in this case that she might bear a child. Normally, the supplicant repeats her prestations for 100 mornings; if her wish is an especially urgent one, however, she extends her importunings ten-fold.

The intended purpose of such a rite, as indicated, is very often to enlist supernatural help in conceiving a child, but it serves also to bestow luck or wealth, to restore health to a family member, or to protect a traveler away from home. The practice differs from region to region and even from one household to another; prayers, for



Figure 26. Water bowls (*chōngsu tanji*) used in household religious rites, Kyōnggi Province. (Photo by Ralph Rinzler, 1982.)

instance, might also be offered at the foot of some high mountain, near an ancient tree with stones lodged in its limbs (to accommodate the water jars), or at a Buddhist shrine.²² The latter location is especially significant, inasmuch as many Koreans associate these rites with a large corpus of Buddhist observances.

In fact, even though such rites have absorbed influences from Buddhism, Taoism, and Confucianism, their true genesis is in a more fundamental belief system that, lacking a precise term, has been called "animism" or "shamanism."²³ Furthermore, they are almost exclusively the province of women—either the mistress of the house, who stands as symbolic representative of the family, or the professional shaman (*mudang*).²⁴ While it is to be expected that Korean women born since World War II are less conversant with shamanistic practices than members of their mothers' and grandmothers' generations, one authority, Lee Jung-Young, estimated in 1975 that more than half the population still acknowledged the efficacy of such rites.²⁵

Onggi was associated with the primordial shaman religion by Dallet as early as 1874:

[Koreans] see the devil everywhere, they believe in propitious and unpropitious days, in favorable and unfavorable places, and everything becomes a sign of good or bad fortune for them. They unceasingly draw lots and consult diviners, and multiply conjurations, sacrifices and all manner of sorcery before, during and after all important actions or enterprises. In every house there are one or two earthenware jugs to hold the household gods Seng-tsou, protector of birth and life; Tse-tsou, protector of dwellings; etc., and from time to time the great prostration is performed before these jugs.²⁶

The two "household gods" of Dallet's account are almost certainly Söngju, sometimes referred to as the "spirit of the ridgepole," and T'öju, "the protector of the housesite," who along with a third deity, Chesök, form a sort of domestic trinity. During important spring and autumn rituals of thanksgiving, the table offerings to these three spirits exceed all others.²⁷

Söngju, who brings the house a measure of well-being by repelling disease spirits, normally resides (Dallet notwithstanding) in a paper envelope attached to a dwelling's main ridgepole. When the house is built, a *mudang* fashions the envelope, filling it with a quantity of rice

and money. Inviting the spirit to take up residence inside, she soaks the paper in wine and pastes it up in the rafters of the main living room. On important occasions thereafter, food is spread before Söngju's fetish, and prayers are directed toward it. Should Söngju ever desert the premises—having taken offense at something that has transpired in the household or been unable to fend off a malign spirit—the shaman is recalled to induce his return. She thereupon also renews the paper envelope with rice, usually as many spoonfuls as the house is years old.²⁸

Chesök, the spirit of procreation and the guardian of infants four and younger, resides in the woman's chamber of the house. A barren woman or a mother with a sickly infant, would direct most of her prayers toward this deity. Normally, Chesök's fetish is a rice or money-filled paper bag.²⁹ In some localities, however, this spirit inhabits a rice or barley-laden bowl covered with mulberry paper.³⁰ Reports one early writer of such a bowl: "In olden days, it was an earthenware jar full of dry rice set up on a shelf. Periodical worship was offered to it. If the rice swelled and overflowed the jar, it meant good fortune. If it soured, there was trouble ahead."³¹

The remaining deity, T'öju (or T'öju taegam), is the protector and overseer of the housesite as a whole, including the courtyard and outbuildings. His special attribute is that he bestows prosperity on the family; thus he is referred to as the god of wealth and blessings. According to Lee Jung-Young, T'öju's fetish is a small jar of newly harvested crops hidden from view in a straw-covered hut. At each full moon during *ttök kosa* ("rice cake ritual"), dark brown patties of glutinous rice mixed with crushed beans are dedicated to this spirit. Later, during the autumn harvest ritual, the contents of the jar are renewed, and a new straw covering is fabricated; the hut is then encircled with a straw rope trailing white ribbons to denote its sacredness.³² Like the Chesök jar, this fetish sometimes forecasts good and bad luck: "In this ritual the sacred jar is opened before refilling it with new crops, and the condition of the old offerings indicates whether the crops are better or worse. If the crops in the jar are rotten, then it is a sign of misfortune to the family."³³

Earlier descriptions of the luck god's fetish, which add important details to the foregoing, are included in Clark and Bishop. According to the first authority: "Around behind the house one would find them, small jars perhaps with a few pennies in them, covered by peaked tent-like roofs of thatch. Once or twice a year or oftener, cooked rice or rice bread and fruits were spread out before them and the household

bowed and did them reverence."³⁴ Referring to T'öju specifically, Clark adds: "As to the site god, it is usually the Mootang who comes and enshrines him in the jar, or the 'nest,' as it is called."³⁵

Bishop describes T'öju's fetish as "a straw booth three feet high, in which is a flower-pot containing some rice covered with a stone and paper."³⁶ She also tells this story about a second welfare spirit, Pamul, who resides in a granary "paste jar" (probably a *toenjang tanji*) situated upon two decorated bags of rice:

A man in Chemulpo [Inch'ön], now a Christian, had a very famous fetish, which was originally a jar of beans, but these were changed into clear water, and a mysterious improvement in the fortunes of the family set in from that date, the jar becoming an object of grateful worship. One day it was found broken and the water lost, and from that time his fortunes declined.³⁷

Beyond the domicile are countless other supernaturals, each commanding a certain attentiveness and respect. Thus a traveler along the road between hamlets might find his attention diverted by the shrine of some local deity—usually an ancient, gnarled tree with stones piled below or nearby. To ensure the safety of his village and crops or to obtain some favor, he would leave behind a token—a bit of cloth, a bag of rice, or a few coins. In similar fashion, according to Hulbert: "A woman from the village below may come up the hill with a bowl of rice and a little honey and set the food down on a stone and shuffle her hands together, bending low the while. She is asking that her son come home betimes from his fishing trip, or that her child may recover speedily from the disease which has seized upon it."³⁸

Unlike the tutelary deities of villages, mountains, and rivers, the vast hordes of ghosts and disease spirits are attached to no particular locus—a circumstance that makes them particularly noisome. Ghosts especially are said to take capricious delight in tormenting villagers by misplacing articles, pounding on doors through the night, and rattling kettles and pans in the kitchen. Because these perverse pranks have been known to drive people from their homes, peace offerings (e.g., "clothing placed in an earthen jar"³⁹) are sometimes rendered the intruders. Should this endeavor fail in its intended effect, the desperate party might seek the assistance of a blind *p'ansu* (a male sorcerer somewhat subordinate to the female *mudang*), who, in addition to casting horoscopes, interpreting dreams, and divining lost articles, has

the gift of exorcism. Once the offending spirit had been ritually identified and summoned forth, the exorcist sits calmly on his veranda and waits for an assistant to drive the ghost toward him with a peach branch. Just at the moment when the ghost approaches, according to Clark, "The Pansoo has all prepared and ready an earthenware or stone bottle and a lump of buckwheat dough. The harassed spirit is ordered to enter the bottle, and is unable to resist longer. He goes in, the assistant jams the dough in for a cork, and the bottle is taken out on the hills and buried."⁴⁰

Regarded with even greater apprehension than ghosts are the disease spirits and tramp souls bred on execution grounds and battlefields. These are usually dealt with by the same *mudang* who makes charms to protect children from wandering spirits and who places and restores fetishes about the house.⁴¹ Rather than exorcising malign spirits after the manner of the *p'ansu*, she cultivates their favor. Thus to rid a village of a smallpox spirit (a common scourge in feudal times), the shaman arranges for a feast and ceremony to honor the intruder, then later prepares for him a farewell banquet. After the disease spirit's departure, a purification rite is given, and the displaced house spirit is invited back into the residence.

Such rites are both elaborate and costly; yet they figure importantly in the ritual lives of traditional Koreans and are still performed, not only to cure illness, but also to ensure the soul's safe passage into the afterlife following death and burial, and to propitiate the dragon spirit, who controls the rain. Here, too, we find in the literature oblique reference to *onggi*, such as this bit of commentary by Hulbert: "The most interesting part of the ceremony is the *mudang's* dance, which is performed on the edge of a knife blade laid across the mouth of a jar that is filled to the brim with water."⁴² One should bear in mind, however, that it is not the vessels themselves that possess power, even though they may be regarded as fetishes; they are perhaps more appropriately treated as simple vehicles for the performance of a rite.

Miscellaneous Ware

A few kindred wares, because they are non-food-related, have thus far escaped mention in this report. Some of these, such as unglazed



Figure 27. House near Kyōngju, N. Kyōngsang Province, with ceramic tile roof and chimney pipes. The latter (kul tuk) vent smoke and soot from the dwelling's kitchen hearth. (Photo by Ralph Rinzler, 1972.)

flower pots (*hwabun* or *kkot tanji*), rooftiles, and chimney pipes (Figure 27), reflect different manufacturing techniques and, therefore, deserve a more specialized treatment. Others, like cup-and-plate oil lamps (*tŭngjanp'an*), are so obscure as to merit only passing mention or, like the brightly-painted storage jars used as cigaret and refuse receptacles along city boulevards, are variations on wares already described.

This leaves but one final class of significant wares: receptacles for the collection of human waste (Figure 28). Rural toilets, for example, often consist of nothing more than a buried *tok* (*ttong t'ong* or *piryo t'ong*, “dung” or “fertilizer” container) with a seat made from four planks nailed into a square. A scoop is used to empty this primitive convenience. Farmers also collect liquid fertilizer in either a round pitcher (*ojum tok*) or in a “rice bale”-shaped *ojum changgun*, with a small mouth affixed to its side. The latter is similar to, but larger than, the liquor container called *sul changgun*.⁴³ Through the winter, many rural dwellers also keep chamber pots (*yogang* or *pyŏn'gi*) in their sleeping quarters, pouring the contents on the garden each morning.



Figure 28. *Piryo t'ong* for collection of human fertilizer, Taejŏn, S. Ch'ungch'ŏng Province. (Photo by Ralph Rinzler, 1972.)

At marriage, a new bride was expected to take a *yogang* with her to the residence of her parents-in-law. As she was new to the household and not free to move about at night, this was an absolute necessity and freed her from the embarrassment of asking her husband to provide one. Today, this form (which resembles a covered *tanji*) is still found in some places, although it is usually made of a white ceramic material or stainless steel.

The Onggi Industry: 1971–1981

During the summer of 1981, Ralph Rinzler and Robert Sayers, together with art historian Yun Yeol-su and interpreter Kim Young-pil, compiled historical and technical information on *onggi* workshops (“factories”) in six of the Republic of Korea’s nine provinces (Figure 29). This fieldwork was a recapitulation of 1971 and 1972 investigations by Rinzler, accompanied at various times by Emille Museum director Zozayong (Cho Cha-yong), businessman and pottery enthusiast Roger Eddy, ceramics professor Thano Johnson, and officers of the now-disbanded Korean Folkist Society.¹ Information gained at 10 factory locations during the first two trips forms the nucleus of this chapter and establishes a baseline against which the more recent data (collected, with one addition, at the same locations) are to be weighed. This decade-long hiatus affords us as well an opportunity to evaluate empirically those alterations that have taken place in the industry during a period of accelerated social and economic change.

The original study sample accrued, in large measure, through chance circumstance. The whereabouts of some of the factories (or factory clusters) were already known to Roger Eddy and to Zozayong; the remainder were visited at the suggestion of *onggi* vendors in nearby towns. Thus, while the sample takes in considerable territory, it does not necessarily represent a cross-section of all possible types or configurations of factories. We did not, for example, visit any producers of cooking ware or drainpipes and roof tiles. As a result, important characteristics of the domestic industry almost certainly have been overlooked, a shortcoming we hope will be corrected by other researchers.

The following narrative allows the reader to assimilate information in much the fashion we did—that is, as we journeyed from one factory to the next. Because two time periods—1971–1972 and 1981—are represented, it has been necessary in some instances to

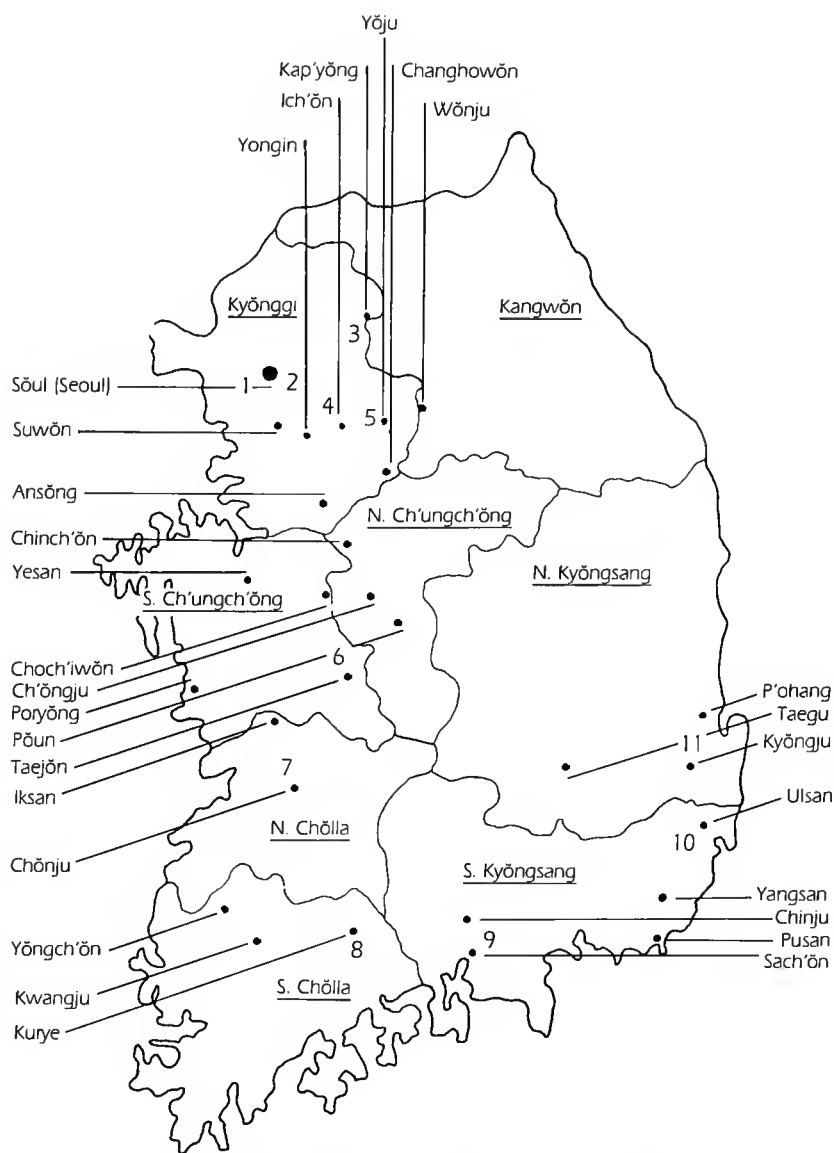


Figure 29. South Korea, tracing route of 1971–1972 and 1981 field trips. Numbered factory locations are referenced in text. (Illustration by Daphne Shuttleworth.)

present the earlier finding in a retrospective fashion. (Three centered asterisks in the text indicate a shift in time or location.) We trust that this will not confuse the reader too greatly. Finally, a few words should be said about South Korea's geopolitical components.

The country is divided into nine provinces (*to*): Kyōnggi and Kangwŏn provinces, North and South Ch'ungch'ōng provinces, North and South Chōlla provinces, North and South Kyōngsang provinces, and Cheju Island off the south coast. In addition, two large urban centers, Seoul and Pusan, in the northwestern and southeastern parts of the country enjoy autonomous administrative status. Differences in climate, in the distribution of natural resources, and in transportation and communication facilities lend each region its own special characteristics.² Provinces are further subdivided administratively into counties (*kun*), townships with centralized and dispersed populations (*ūp* and *myŏn*, respectively), and villages or village clusters (*ri*)—the latter rarely exceeding 1000 individuals, 300–600 being perhaps the norm.³ Using this equation, then, a typical address for a rural *onggi* factory would read: *Talch'ōl-li*, *Kap'yōng-ūp*, *Kap'yōng-gun*, *Kyōnggi-do*—which freely translates Talch'ōl village, Kap'yōng township, Kap'yōng county, Kyōnggi Province.

Seoul and Kyōnggi Province

The capital city of Seoul (*Sōul*) is a residence for more than eight million people, a populace still being augmented by new tides of rural immigrants. Formerly a quiet walled city of single-story buildings compressed between mountains to the north and the Han River to the south, it is now an impressive forest of tall office buildings and hotels surrounded by expanding rings of residential neighborhoods and industrial parks. Throughout Seoul, multitudes of small Korean-made automobiles and motorcycles compete for the right-of-way with precariously loaded bicycles and pushcarts piled high with sundries.

A picture of cosmopolitan life, Seoul contains many fashionable department stores, restaurants, and retail arcades. Much domestic commerce, on the other hand, still occurs on the sidewalks and in open-air markets that have their points of entry along the major thoroughfares. Oryu-dong market in the west, to cite one example, in

1981 was a labyrinthine warren of narrow alleyways bounded by enclosed courtyards, two- and three-story dwellings, and vendors' stalls—the latter containing everything from fresh fish and produce to tennis shoes, toys, paperback books, cookware, potted plants, and bicycles. The cackling of chickens, the chatter of customers queuing up in front of a particular establishment, the voice of a street singer pushing a battery-powered amplifier through the crowd—all of these sights and sounds combined with the lingering smells of fresh fish, pickled vegetables, and steaming kettles of meat to leave an indelible impression with the Western visitor.

We began our 1981 journey in Oryu-dong market, in the main, to take stock of the available ceramic product. Indeed, traveling about the country, we very often obtained the best sense of local foodwares by exploring *onggi* vendors' stalls (Figure 30). As it happened, we did not have far to look, for, immediately upon entering the market, we found examples of the pottery as well as other items of traditional material culture; we also spotted harbingers of a new order—aluminum buckets (*yang tongi*) and red plastic basins (*mul t'ong*)—that were



Figure 30. Onggi vendor in Seoul. Items for sale include storage jars, unglazed flower pots (tied in bundles lower left), rice steamers (behind the dog houses, top left), and a water jar (center foreground). (Photo by Ralph Rinzler, 1971.)

far more prevalent than they had been a decade earlier when Rinzler first began his investigations.

After making inquiries, we followed several alleyways to the shop of *onggi* vendor Nan Sang-yŏl, passing along the way an unusual display of stone tomb markers outside a corner tea room. (These, it turned out, advertised the establishment's antique-filled interior, which contained all manner of food jars, porcelain objects, baskets, drums, masks, horsehair hats, and an oxcart made over as a table.) Nan lived with his family in a low dwelling adjacent to a crowded courtyard wherein, partially obscured by lines of hanging laundry, were piles of light brown storage jars (*hangari*) and lids (*ttukkŏng* or *soraegi*); shiny red, almost maroon soy sauce servers (*kanjang tanji*); and small, two-handled water bowls (*chŏngsu tanji*, "clear water *tanji*"). Mixed in among the ceramic ware was a modest accumulation of coal briquettes (*yŏnt'an*) used in kitchen hearths and outdoor braziers.

On the opposite side of the market, a second *onggi* vendor, Chung Sang-un, had more of the same ware stacked in a shaded spot at the confluence of two alleys: storage jars, honey or seasoning containers (*koch'ujang tanji*), stew and soup bowls (*ttukpaegi* and *kuk t'ugari*), and rice cauldrons (*sot* or *nogumi sot*). We had earlier purchased a *chŏngsu tanji*—at a cost of 2500 *wŏn* (\$3.57) as compared with 3800–4500 *wŏn* (\$5.43–\$6.43) for a large *tok*⁴—which we learned figured importantly in household rites. The *nogumi sot* apparently served a similar function. A housewife, Chung explained, would cook her rice in the container, then fill it with water. Holding it on either side by its medial flange (etiquette demanded that such offerings be proffered with two hands), she would pray to the mountain spirits for some positive benefit. While the ware at the first shop came from an *onggi* factory near Yongin, Chung obtained his at Togo north of Yesan in South Ch'ungch'ŏng Province.

Satisfied with these initial investigations, we journeyed forth toward Puch'ŏn on Seoul's western edge, passing on the way another ware shop stocked with blue spray-painted earthenware flowerpots (*kkot tanji*), inexpensive porcelain objects, and storage jars bearing glaze decorations representing bamboo and leaf designs and, in one instance, a stylized rooster. The short ride presented us with an opportunity to review Rinzler's findings of 10 years earlier.

Our destination, as Rinzler remembered it, was an area of tile-roof dwellings and large open farm fields bisected by dirt-and-rubble streets. Clustered together in a single neighborhood (*Sosa-dong*,

Puch'ŏn-si) (Figure 29, no. 1) were at least six ceramics factories which specialized, variously, in the production of bricks, drainpipes and tiles, earthenware flowerpots (Figure 31), and food storage jars. The food jar factory, the Kŭnjin Pottery Factory, was the largest, employing in 1971 between 40 and 50 workers. Its main work building, an unprepossessing windowless structure of clay bricks illuminated inside with banks of fluorescent lights, provided shelter for a small army of casually-dressed artisans. A few of these men shaped bowls on electric jiggling wheels, while the greater number—12 potters and half that many assistants—worked around several kickwheels (*mulle*) spaced closely together along one wall. Except for a middle-aged supervisor, a fourth generation potter who came to the Kŭnjin Factory the previous year from Suwŏn, most of the men appeared to be in their early 20s.

Videotapes preserved from the 1971 trip show one of the latter workers, a young man of 24, making a round, squat jar about 48 centimeters high (Figures 32, 33, and 34a–m). To begin the process, this individual seated himself on a springy board overlapping the excavated hole into which his wheel was recessed, then took from a container to his left a quantity of fine white sand (*paekt'o*), which he



Figure 31. *Beehive-shaped kiln for firing unglazed flowerpots, Puch'ŏn, Kyŏnggi Province.* (Photo by Ralph Rinzler, 1971.)

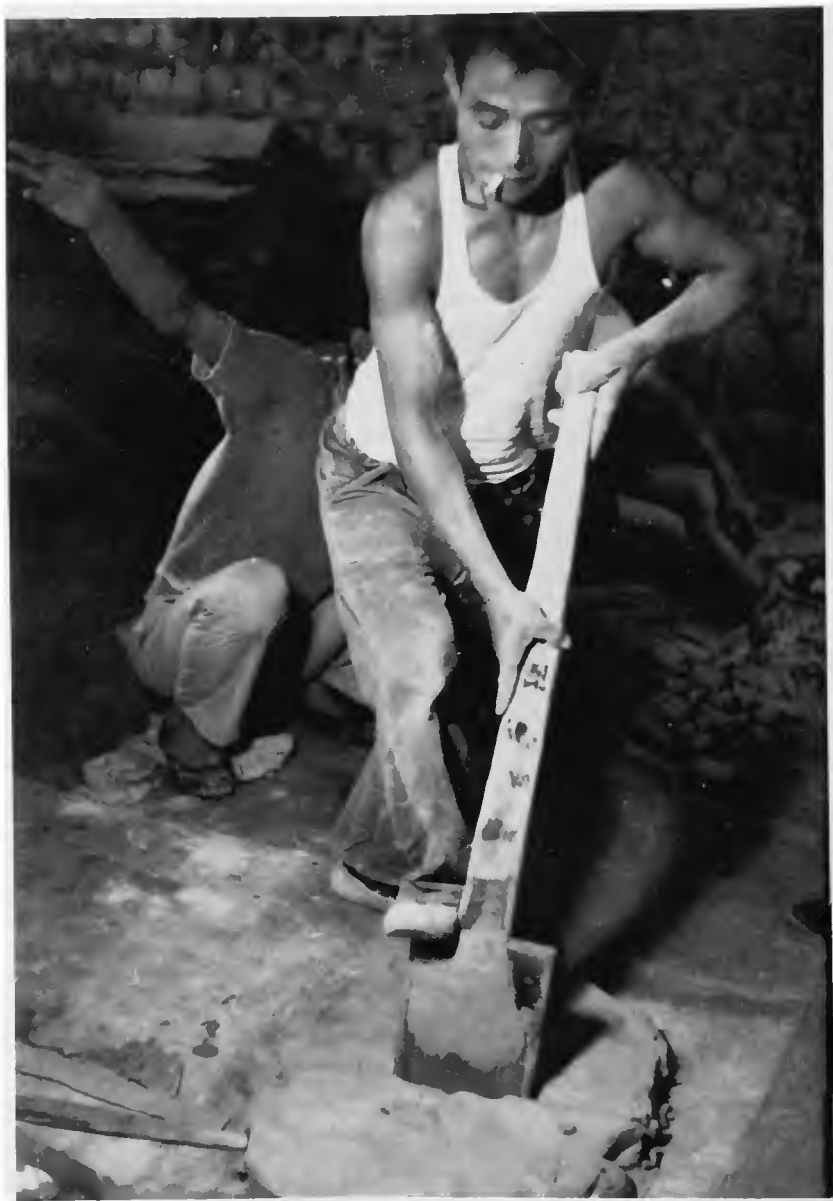


Figure 32. *Worker cutting clay block with wooden shovel.* (Photo by Ralph Rinzler, 1971.)



Figure 33. *Worker slices block of clay into bars, then rolls out coils. (Photo by Ralph Rinzler, 1971.)*



Figures 34a–m. *The coiling process. (Photos by Ralph Rinzler, 1971.)*

Figure 34a. *Wheelhead prepared with sand. This wet release provides just enough adhesion to keep the vessel base from shifting during the manufacturing process.*



Figure 34b. *Bottom disk flattened with wooden beater (pangmangi).*



Figure 34c. *Bottom disk inscribed with awl (mitkasae). This procedure centers the base while trimming it to its proper diameter.*



Figure 34d. *Clay ring mounted on centered base.*



Figure 34e. *Initial coils added in slow clockwise direction.*



Figure 34f. *Vessel wall contoured with paddle (surae) and anvil (t'oge).*

distributed evenly over the turning surface. The sand particles drew just enough moisture from the clay to create an adhesive bond between vessel and wheelhead and later permitted the potter to remove the completed jar without recourse to a slicing wire.

His release in place, the man positioned a clay disk at the wheel's center. Setting the wheel in clockwise motion with his rubber-clad left foot, he pounded the disk radially with a wooden beating tool (*pang-mangi*, "club"). Once the disk was flattened to his satisfaction, he then exchanged the beater for a wooden awl (*mitkasae*, "bottom trimmer") with which he scored a shallow line just inside its perimeter. Momentarily checking the interior diameter with a stick (*cha*, "measure"), he incised his mark all the way through, then pulled the excess ring of clay away to leave a perfectly centered base. Instead of discarding the ring, he stood it upright on the base, reinforcing it on the inside with additional clay rolled out between his hands. (Later, as the vessel neared completion, he would dress the bottom exterior slightly to compensate for this addition.)

Four coils were mounted atop this footing. The potter positioned each on the outer edge of the previous coil, then compressed it inward and downward with the heel of his open left hand, while the side of



Figure 34g. *Sides of jar thinned with metal trapezoid (kūn'gae) and clamshell (an kūn'gae) in fast counter-clockwise direction.*



Figure 34h. *Rim and shoulder of vessel formed with quilted cloth strip.*



Figure 34i. *Wavy dragon line (yong tti) added around midpoint of vessel with leather strip.*



Figure 34j. *Handle attached to vessel wall.*

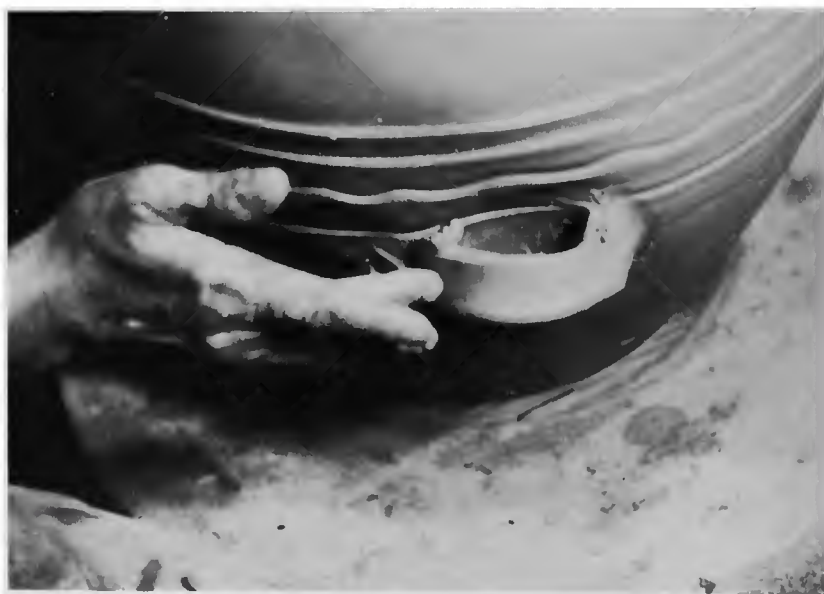


Figure 34k. *Handle in place.*



Figure 34l. *Vessel bottom trimmed with awl.*



Figure 34m. *Finished jar lifted from wheelhead in cloth sling.*

his right forefinger guided within. Closing off the end of the coil once the wheel had made a complete revolution, he added an extra small bit of clay at the juncture and smoothed both vertical and horizontal joints with the side and ball of his finger.

With all four coils in place and roughly welded together, the potter compressed and shaped the cylinder as a whole using two textured wooden tools—a flat, fan-shaped paddle (*surae*) and a round anvil (*t'oge*). Both tools appeared to strike the wall simultaneously; closer inspection revealed, however, that during the operation's initial phase the anvil actually struck first, gently coaxing the clay upward

and outward. As the tools approached the cylinder rim, however, they worked more nearly together.

After paddling the while in a clockwise direction, the potter exchanged his wooden tools for a metal trapezoid (*kūn'gae*, "scraper") and a clamshell (*an kūn'gae*, "inside scraper"). These new tools were used in tandem like their predecessors, except that the direction of the work was reversed to counterclockwise. To gain momentum, the potter braced his extended right leg against the wall of the depression, then pulled the wheel vigorously toward himself with the ball of his left foot. Moving the two tools slowly up the vessel wall, he stopped intermittently to remove from them an accumulation of clay.

Completing the bottom two-thirds of his jar, the potter halted for a moment to retrieve a wooden box he kept near at hand; this he positioned atop his board seat to give him added height over his work. After mounting coils five and six on the wall (which were foreshortened inward toward the vessel mouth), the operator added extra clay around the inside of the rim for reinforcement. Paddling resumed as before, obliterating all evidence of the joints between coils, and was followed by thinning and shaping. For the latter, the potter sometimes used just the trapezoid, keeping his hand on the inside as a backup, sometimes the trapezoid and anvil.

To finish the vessel, the potter folded a dampened piece of quilted cloth over the rim, then turned the latter outward and down, taking care not to trap air beneath the fold. Two or three times he did this, each time reshaping and collaring the mouth with his tools and hands, to give added strength to the rim. He also used the cloth to smooth the shoulder of the vessel. With a piece of fine leather he next created three raised bands—two straight and one wavy—around the midsection of the jar, adding afterwards one or two stamped rosettes. Imperfections were repaired with bits of clay, then were touched up with the edges and points of the trapezoid or with the potter's forefinger.

Sixteen minutes had elapsed to this point. After dressing the bottom of the vessel slightly with a second pointed awl (*mokkasae*, "wooden trimmer"), the potter fixed strong handles—buted chunks of clay coaxed outward and fixed horizontally in a second spot—to either side. Once the handles were in place, Rinzler's demonstrator rocked the jar back and forth to loosen it, then carried it to a waiting board.

Most of the men's wages were based on a percentage of the work accomplished. Thus the wheelmen and their assistants (who divided themselves into three-member teams) shared 40 percent of the profit from a kilnload of ware, minus any damaged pieces. (Larger ware earned the workers a piece-rate of 30 *wŏn*, or \$.08, per *mal* capacity.)⁵ This worked out to a daily average for the potters of about 1000–1500 *wŏn* (\$2.50–\$3.75), especially during the spring and autumn seasons when most of the ware was sold. Each worker in addition was entitled to collect a cash advance of around 50 thousand *wŏn* (\$125) against his 400–500 thousand *wŏn* (\$1000–\$1250) total annual earnings.

Managing their own time, the men started work sometimes as early as 2:00 A.M., six days a week, Sundays excepted, eight months out of the year. Propriety and friendship were such that they always drew equal shares, even when one absented himself from the workplace for a day or two because of sickness. As a result, work group members always scrutinized new candidates for employment with care to ascertain that they possessed skills equivalent to their own.

Before leaving the Kŭnjin Factory, Rinzler recorded a few other activities about the grounds. In one corner of the yard, a small group of workers processed clay (obtained earlier from Ansŏng) through a motor-driven extruder (*rogguro*, probably from the Japanese *rokuro*), which forced out fat coils about 18 centimeters thick. Nearby, a lone individual glazed jars in a square metal vat. The vessels were coated one at a time in a solution of fine clay (*yakt'o*) from Chinch'ŏn, pine or beanhusk ashes (*chae*), and smaller amounts of manganese oxide (*manggan*) and powdered red lead (*kwangmyŏngdan*). Inverted momentarily on the basin's edge to drain, each coated jar was then set upright on a small wooden pallet where the bearer added a sweeping leaf design by wiping off a portion of the glaze with his fingertips. After a large number of vessels had been glazed thus, he carted them away to one of two gas kilns on the premises.

* * *

No familiar landmarks remained when we returned to Puch'ŏn in 1981. The potters' village as well as most of the surrounding farmland had been given over to city streets and an industrial park of cement, gas, and vinyl flooring factories. Threading our way through a maze of unfamiliar concrete walls, we were frankly surprised to find even one ceramics factory left in the area. The entry to this concern—retitled the Kŭnjin Chinaware Manufacturing Company, Ltd.—was

an efficient-looking, one-story office building furnished with potted plants, modern office furniture, and a comfortable display room for visitors. A glossy color brochure, printed in English, proudly announced:

Introducing Kunjin! Established in 1960, the Kunjin Chinaware Mfg. Co., Ltd., has grown up with the history of industries of Korea. Our long lived and ever increased business has been brought from the highest knowledge and experience, well-established goodwill, dependability and fair deal.

Illustrated in the catalog were some 350 articles. Among the more practical items were artfully decorated flowerpots (including a number of facsimiles of classical Koryŏ and Yi dynasty porcelains), hanging planters, mugs, teapots, cups and saucers, cookie jars, and ashtrays. Curios, which completed the offering, included molded animals (frogs, cows, cats, monkeys, fawns, owls, pandas, and pigs), a pagoda, and a Dutch windmill.

Kim Sŏng-soe, the owner, was in Houston, Texas, negotiating with an American client the day we arrived, but his wife, Kyŏng Chŏng-hŭi, now the company vice-president, shed some light on what had taken place over the previous decade (Figure 35). Her husband, she said, began his career as a farmer in the Sihŭng area. After several years thus engaged, he turned to building contracting for a living. Quite by accident, one of his projects was the construction of a ceramics factory. His interest engaged, Kim in 1960 purchased his own drainpipe works, which he soon converted to a food jar factory. Unable over the long run to sustain a market for the traditional ware, he stepped up production of a popular small bowl called *al t'ugari*. Achieving modest success with this form, he next experimented with a line of flowerpots that he found especially well-suited for export to Australia, Canada, France, and the United States.

Embarking simultaneously on an ambitious upgrading of his physical plant, Kim Sŏng-soe demolished many of the older work buildings, while incorporating others in a new structure. To streamline the clay processing operations, he purchased industrial machinery—giant drum mixers, electric pugmills, and compression forms that released fully wedged clay slabs—and added slip-casting molds and supplementary jiggling wheels to the production areas (Figures 36 and



Figure 35. *Kyōng Chōng-hui* (in *Kūnjin Factory's* display room) with *porcelain export ware*. (Photo by Ralph Rinzler, 1981.)

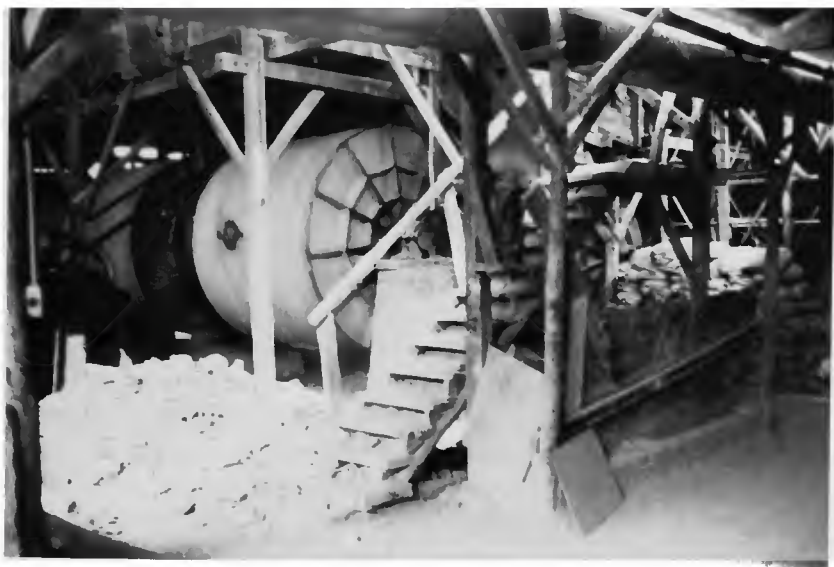


Figure 36. *Industrial clay mixers at Künjin Factory replace labor-intensive hand-processing methods.* (Photo by Ralph Rinzler, 1981.)



Figure 37. *Workers at Künjin Factory manufacturing ware with jiggering knives and templates.* (Photo by Ralph Rinzler, 1981.)

37). Jigged or cast, the ware was afterwards moved on mechanical conveyers to a modern gas kiln fitted with a track-mounted cart, where it was bisque-fired, hand-painted or glazed, and then refired.

The owners at this time released their hand potters to work in other factories. In 1980, however, they rehired two wheelmen to produce a few of the larger jars. Noted the vice-president: "We can, of course, do without hand potters, but just for the sake of upholding our company's traditions, we hire them." The older of the pair, a middle-aged man born in Hwanghae Province, had, since his teen years, worked in flowerpot and storage jar factories in Kyōnggi Province and on Cheju Island; the second potter, a young man of 23, had for three years manufactured flowerpots in Seoul with his father.

Neither of the potters expressed any great enthusiasm for the work. The young man found it reasonably interesting, if not very profitable. Echoing these sentiments, the second man felt that, relatively speaking, he was making less money than he had earned as an *onggi* potter. In fact, both men were paid a monthly wage of around 250 thousand *wōn* (\$357), competitive with salaries recorded in other factories. Other workers—the jigger men and the kiln technicians—earned around 200 thousand *wōn* (\$286), while the shop foreman, an employee of long standing with knowledge of all the factory's operations, received 500 thousand *wōn* (\$714).

The potters worked on small, rather insubstantial-looking electric wheels that were positioned on the workroom's cement floor. In manufacturing a jar or flowerpot, the men started in the familiar manner, flattening and incising a disk base with beater and awl (*pangmangi* and *mitkasae*). Instead of building a wall of coils on this foundation, however, they unrolled clay slabs in place, scored these vertically with the side of the finger, then drew them upward and outward using both hands plus a piece of fabric folded over the rim. At no point did the pair use the paddle and anvil of the *onggi* potters; these items, in fact, were significantly absent from their tool collections. We would later see similar slab work in the Chōlla provinces, but this was quite novel for the Kyōnggi area, and was perhaps necessitated by the unidirectional constraints of the men's wheels.⁶

Final thinning and smoothing were accomplished in the normal fashion with a metal trapezoid and a shell scraper (*kūn'gae* and *an kūn'gae*) plus fabric and leather finishing strips (*mulgajuk* and *kamjaebi*, "water leather" and "touch smoother"), while the rim was evened with an iron awl (*mokkasae*). A metal support ring (*tūlch'ae*) was inserted

inside each pot before a young woman seated at a table nearby inscribed the vessel with an intricate sgraffito design.

In 1981 the Kŭnjin Factory employed just under 200 workers. Only three remained from the earlier period, according to Kyŏng Chŏng-hŭi, although a large number had been at the factory for seven or eight years. Most of the employees commuted to their jobs from surrounding residential areas, while a few others lived with their families in company dwellings. In addition, bachelor workers shared dormitory space on the grounds. Because of a surplus of labor, the owners no longer sought to recruit new workers, nor were they compelled to tender cash advances or contracts to those they did hire. All prospective employees who appeared at the site were provided with forms to fill out and invited back as needed.

The owners' export revenues for 1980 were indicative of the scale of the operation: 1.2 million dollars, with an additional 10 percent in sales to domestic buyers. The vice president cautioned, however, that these overall figures did not take into account the family's considerable overhead in materials, salaries, and transportation. Nor did they anticipate future sales, inasmuch as she and her husband were now competing with larger, better-capitalized exporters. For the moment, however, she felt that business was adequate. Her two children—a married daughter and a son studying English literature as a college freshman—had so far demonstrated little interest in the family enterprise. Indications were that the son would be more than welcome to join his parents in the ceramics business, should he so desire.

* * *

Although the striking transformation of the Kŭnjin Factory was of surpassing interest, our findings suggested the alarming possibility that other *onggi* factories might be greatly altered as well. Therefore, before proceeding farther into Kyŏnggi Province, we determined to look for another traditional workshop in the metropolitan area. By coincidence, the workshop we eventually located, the Yŏngsin Factory near Seoul's East Gate (*Sinnae-dong, Tongdaemun-gu*) (Figure 29, no. 2), had been filmed several years earlier by an American ceramics professor, Ronald Dubois of Oklahoma State University, and so fit handily into our restudy.⁷

Incorporated in another of Seoul's sprawling industrial suburbs—to all appearances, a singularly unpromising location—the Yŏngsin Factory was sandwiched between a tire retreading works on one side and, to the other across an open courtyard, a stone cutting operation,

where several men with hand tools were shaping their materials under a large canopy. The factory's proprietor, Kim T'ae-jin, told us that he had once owned three *onggi* workshops in the area but that a recent decline in sales had forced him to terminate two of the operations. In 1981 he rented one of the sites to the stone cutters and the other to a man who manufactured cardboard boxes. His remaining factory, he said, supported five potters plus an additional few workers.

A sales area in front of the main work building harbored an assortment of storage jars like those seen earlier in Oryu-dong market as well as briquette coal heaters (*yōnt'an hwadok* or *pangsu t'ong*) and chocolate-colored basins (*chabaegi* or *ombakchi*) for stewing meat. The dark glaze on these vessels, we learned, was a mixture of pine or leaf ash and a clay binder obtained from Yongin or Kap'yōng. Other ware about the premises included unglazed earthenware flowerpots and a collection of porcelain bric-a-brac.

We might have missed the Yōngsin Factory but for its telltale climbing kiln, a dramatic architectural feature we would henceforth adopt as a landmark when looking for other factories. This particular kiln was about 30 meters long, with a deep depression at its mouth and a rickety metal roof stretched out over its entire length. Close inspection revealed that it was segmented into separate chambers, each with its own loading port and supporting piers. The kiln was fired over six days using as fuel, oil- or creosote-impregnated railroad ties and possibly truck tires which were stacked in great quantities nearby. Heat was transferred from one compartment to the next through low grates in the interstitial walls.

As the kiln lay dormant for the moment, we turned our attention to a hollow thumping sound coming from the vicinity of the plaster-covered cinder block work building. Stooping low to enter, we discovered inside a handful of potters (*taejang* or *mulle taejang*) paddling jars on old-style kickwheels recessed into the compacted dirt floor; two assistants (*kōnakkun*) also prepared clay bases and coils nearby. Each wheel was situated beneath a low window, illumination from which was augmented by bare lightbulbs hanging overhead. Portable electric fans cooled the potters (a wood stove was moved inside during the winter months), and plastic sheeting tucked up under the low ceiling rafters protected the men from dripping moisture. Outdoors, in a courtyard behind the main structure, other workers were cycling their ball clay (obtained from a site near Yōngch'ōn) through a mechanical extruder powered by a noisy two-piston diesel engine.

Reassured by what we found at the Yöngsin Factory, we resumed the route of the 1971 and 1972 journeys. Heading northeastward toward an area on the boundary between Kyönggi and Kangwön Provinces, we followed a narrow but well-maintained highway through tree-covered mountains along the upper reaches of the Han River. A gravel and dirt road 10 years earlier, it was now a picturesque winding thoroughfare used by thousands of holiday picnickers and climbers enroute to national recreation areas. Along the way we passed canopied roadside fruit vendors and the multicolored tents of bathers, as well as pedestrians transporting loads of food and other goods in two-wheeled carts or on bicycle fenders; most of the traffic, however, seemed to be motorized buses, tractors, and small passenger sedans.

Fifty-six kilometers from the capital, we at last arrived at our destination: the farm town of Kap'yöng. Of three factories surveyed in the area in 1971, the oldest (dating perhaps to the turn-of-the-century) was the Taebung Pottery Factory, a few kilometers from town at Sangsaeng village (*Sangsaeng-ni*, *Kap'yöng-ŭp*, *Kap'yöng-gun*) (Figure 29, no. 3). Here, the earlier research team had paused briefly to observe a group of workers tending a long tunnel-like "cannon kiln" (*taep'ogama*) inclining upward along an embankment from the valley floor and river below (Figures 38 and 39). While heavy trucks and jeeps lumbered by, a young man in casual dress leisurely stoked the fire with a long pole, stopping now and then to add another slab of wood to the blaze. He was assisted by two other workers, one sawing firewood and a second who sat in a mud-and-thatch work building nearby, pumping a flow of oil through two pipes into the kiln's mouth (Figure 40). Elsewhere on the property, a pair of workmen busied themselves unloading brush from a large dump truck, while several women and young children washed clothes in an irrigation ditch. As Rinzler and company videotaped the scene, an elderly bearded man in white cotton garb walked slowly through a patch of purple cosmos to squat in the warmth of the fire.

A second stop in 1971 was the Talsöng Factory at Ubnae village (*Ubnae-ri*) on Kap'yöng's outskirts. The workers at this factory, founded at the close of the Korean War, were photographed loading yet another cannon kiln under the watchful eye of the owner, 56-year-old Sö Pong-sön. The four or five men ducked their heads as they entered the structure through an opening two or three meters up the right side, but stood fully erect once within. Vessels relayed to them from outside were scattered temporarily along the brick floor until their proper placement could be determined (Figure 41). All of



Figure 38. *Cannon kiln (taep'ogama) at Taebung Factory near Kap'yŏng, Kyŏnggi Province. (Photo by Ralph Rinzler, 1971.)*



Figure 39. *Chimneyless upper end of kiln in Figure 38 showing flue openings. Fuel drops line both sides of kiln at approximately 40-cm intervals. (Photo by Ralph Rinzler, 1971.)*



Figure 40. *Supplemental oil is pumped through two pipes into mouth of kiln in Figure 38. (Photo by Ralph Rinzler, 1971.)*



Figure 41. *Men stacking interior of cannon kiln at Talsong Factory. (Photo by Ralph Rinzler, 1971.)*

the ware was carefully nested in a predetermined order and then stacked two and three rows high; round ceramic disks and pellets separated the individual pieces preventing their glazed surfaces from touching. In order to keep the ware level on the inclined floor and to allow the passage of heat under and around the vessels, the setting was built up on stone pads. Eventually the workers created a solid wall of ware, with lids sandwiched between the top layer and the kiln's vaulted ceiling. After stacking jars for a time, the men emerged from the kiln to eat a brief lunch of rice and *kimch'i* accompanied by a coarse white wine brought to the worksite in an aluminum bucket. They then resumed their exacting chore, one which would continue into the next day.

The day's activities at the Sönggwang Factory at Talch'öl village (*Talch'öl-li*), where Rinzler spent the majority of his time, were confined mostly to the area surrounding a pair of long thatch-covered storage shelters (Figures 42 and 43). A worker lifted a jar from its resting place amid a vast stockpile of greenware, then immersed and rolled it in a tank of glaze solution. Replacing the vessel in the storage shed, he wiped its bottom with his hands and drew a sweeping leaf decoration (*nanch'o*, "orchid") in the wet glaze with his fingertips.

Several other individuals in the neighborhood transported cartloads of newly seasoned clay from mounds in the yard to a series of small wooden blunging boxes. As soon as a quantity of clay was dumped into one box, an attendant—one of the women of the village—opened a gate separating it from an adjoining water-filled cement tank. Allowing water to enter the box, the woman replaced the rag plug and then, with another worker, perhaps her husband, stirred the mixture with two long-handled wooden paddles (*maktaegi*, "stick"). When most of the clay had been dissolved into thick slurry, the pair ceased stirring and, using a tin can scoop (*t'araebak*) attached to a pole, transferred some of the material from the box through a sieve into the settling tank. Another load of clay was then deposited in the wooden box, the dike was reopened momentarily to admit more water, and the mixing and straining operations were repeated. This laborious process, called *subi*, continued until the settling tank contained a clay sediment free of pebbles, coarse sand, and other foreign matter.

At length, the levigated clay was conveyed in a rudimentary dredge scoop to shallow drying beds (*könjot'ang*). Each bed was lined with a layer of hemp or cotton cloth to prevent impurities from



Figure 42. Ware storage shelters and workroom (small structure in rear) at Sŏnggwang Factory, Kap'yŏng, Kyŏnggi Province. The thatched roofs on all three buildings were intact 10 years after this photo was taken but had been covered over with sheet metal, the result of a rural improvement campaign. (Photo by Ralph Rinzler, 1971.)



Figure 43. Storage room interior. This type of traditional architecture is rapidly disappearing from the Korean countryside. (Photo by Ralph Rinzler, 1971.)

contaminating the material. As the clay sun-baked to a leather state, its partially dried surface was scored with a pointed stick to hasten the process.

After a few days, the clay fragments were shoveled into hand carts and transported into the work building. (If the clay overdried, it was returned to the settling tank as it would otherwise work poorly on the wheel.) The work building was a dark, claustrophobic structure with thick mud walls and tiny floor level windows, the better to retain moisture and to provide a degree of insulation during seasonal extremes of temperature. Rural electrification had already introduced a few radios, lights, and refrigerators into the homes by 1971, but the potters still relied on sunlight, supplemented by kerosene lamps, to illuminate their work.

At the far end of the room, the clay clods were consolidated on the floor into a large mass approximately a meter-and-a-half on a side and eventually an equivalent height. Each load was forcefully hurled atop the growing mound and roughly pressed into it by hand, then further compacted by two workmen wielding large wooden hammers (*ttungme*, "bull-headed hammer"). The men beat the mound first from the top and then on the sides until it was squared off. After swinging their tools at the block for a time, they stopped to add another layer of clay fragments, then resumed pounding. No sooner was the mound completed, however, than an assistant shaved it into clay ribbons using a scythe-like draw knife (*kkaekki*) (Figure 44). This process removed impurities from the clay missed during the *subi* operation and blended and softened the material. Once a quantity of shavings had accumulated on the workroom floor, the same man wedged them into a heavy ball that he positioned nearby to start the bottom layer of a second enormous mound similar to the first. As several layers of balls were built up, the sides of the new mound were squared off with a steel wire (*tchaelchul*, "cut string"), then the scraps were worked back in and repounded. After the second mound was readied, it was sliced into even finer ribbons, which were balled, stacked, and beaten into yet a third mass. Besides the hammers this time, the men used wooden mallets (*me*) and, ultimately, their feet to compress the clay. At the conclusion of this lengthy and exhausting operation, the men covered the mound with a layer of plastic sheeting and left it to await the attentions of the other workshop personnel.

In preparing clay bottom disks and coils for the wheel, a potter's assistant cut away a corner of the mound with a flat wooden shovel



Figure 44. *Potter's assistant using metal blade to shave clay ribbons from large mound. (Photo by Ralph Rinzler, 1971.)*

(*karae* or *nökkarae*, “shovel” and “wooden shovel”). Swinging the latter like an ax, the assistant cut into the mass with the side of the blade, then separated a block of clay with its tapered point. Once freed, the clay was placed on a hempcloth mat. From this chunk, the assistant tore away smaller pieces which he kneaded into oblate balls. Each ball was repeatedly pitched onto the workroom floor—first on one side and then the other—until it was disk-shaped. The round disks were then stacked in piles near the wheelmen. The assistant made coils in similar fashion. A clay chunk cut from the original mound was sliced with a wire in two directions to make six bars of equivalent size. The bars were elongated by blocking and lateral thrusting, then rolled, using the bony heel parts of the worker’s hands, into slightly twisted coils about a meter-and-a-half in length.

Each assistant was responsible for the work of two or three of the 10 wheelmen in the shop. Once an assistant had prepared coils and bases for one potter, he then checked the work of his other charges. As finished pots accumulated, the assistant carried them away to the adjoining storage building. The men went about their business quietly and efficiently, exchanging signals and occasionally joining in conversation.

The factory’s founder, 65-year-old Yu Pyŏng-no, personally demonstrated the shaping process for his American visitor in 1971, although he emphasized that he no longer did such work on a day-to-day basis. Like most other factory owners, his days were usually spent supervising the shop personnel and handling sales. Yu’s procedures and tools were essentially those Rinzler had recorded near Seoul (Figure 45). He centered a bottom disk on the sand-prepared wheel-head, then pounded it flat with a pine beater (*pangmaengi* or *pangmangi*, “club”), all the while keeping the fingertips of his left hand inserted under the far edge of the disk to gauge its thickness. Finishing one side, he turned the disk over on the wheel and flattened the other side. If this initial operation were not done correctly, the owner cautioned, the vessel bottom would crack during drying and/or firing.

Yu incised the flattened disk with a cherry wood awl (*mithasae*) after checking its diameter with a *ssari*-wood (bush clover) stick gauge (*cha* or *padak chŏnggŭm*, “measure” and “bottom measure”). Pulling away the ring of excess clay, he mounted it on the periphery of the centered base to initiate the cylinder wall. Upon this foundation he added the first two coils, then compressed these with pine paddle (*surae*) and anvil (*t’oge*). After working the wooden tools up and down



Figure 45. *Potters' tools at Sönggwang Factory (left to right): bottom flattener (pangmangi), incising awl (mitkasae), paddle (surae), anvil (t'oge), outside shaper (pakkat kün'gae), inside shaper (an kün'gae), cloth finishing strip (mulgajuk), (top) roller stamp (torürae), and (bottom) stick gauge (padak chönggüm).* (Scale in inches.) (Photo by Ralph Rinzler, 1971.)

the wall for a time, he exchanged them for a pair of metal shapers: a large trapezoid (*pakkat kün'gae*, "outside scraper") and, instead of the shell seen earlier, a small oval (*an kün'gae*, "inside scraper"). Two more coils were mounted on the wall and finished exactly as before. As the cylinder grew to four coils high, Yu traded his bench seat for a wooden box, then added the last three coils to create the vessel's shoulder. His stick gauge was momentarily laid across the opening to bring the top and bottom diameters into accord.

To form the rim, the potter employed both a quilted cloth strip (*mulgajuk*) and, for fine detailing, the sides and corners of his trapezoid. Holding a piece of soft leather (*hamjaebi*) against the side of the vessel as the wheel spun round, he created a wavy "dragon line" (*yong tti*), the symbol of good fortune, flanked by two rings. Punctuations were also added around the jar's neck with a ceramic roller stamp (*torürae*). Finally, the jar's bottom was dressed with a metal tool. In its

final state, the vessel stood about 50 centimeters high and 26 centimeters in breadth at its widest point.

Twenty minutes after starting work on the jar, Yu Pyŏng-no carefully rocked it at several points, then wrapped a flexible C-shaped pine lifter (*tŭlch'ae*) around its base. This type of bow-lifter supported the weight of the jar while keeping the potter's body from deforming its sides. After three or four similar vessels were in place on a board next to the wheelman, the assistant carried them off to an adjoining drying shed where they joined scores of others awaiting glazing.

The other potters in the shop produced ware in a manner largely indistinguishable from that of their supervisor. A perusal of their tools, however, disclosed a number of minor differences. Some of the men's wooden bottom flatteners and paddles had pieces of leather stapled to their working surfaces where the original release marks had been abraded away. Others were using wooden trapezoids (*namu kŭn'gae*, "wood scraper") and clamshells (*chogae* or *chogaebi*, "shell") in place of Yu's metal shapers. Different types of lifters were also in evidence: very large vessels, for example, were taken from the head-block using a cotton sling (*tŭlppo*) manipulated by the potter and his assistant, whereas shallow, flat lids were lifted using two flexible sticks (*tŭlch'ae*).⁸

Specialized tools employed only during the making of very large jars included a pair of tin can heaters and a long, slightly-curved wooden stick. The stick (*hwal kŭn'gae* or *hwal kŭnae*, "bow scraper") substituted for the metal or shell inside scraper (*an kŭn'gae*) during the advanced stages of the work; as such, it served as an extension of the potter's arm. The heaters (*pult'ong*, "fire container") were used to draw moisture out of the vessel wall, thereby preventing its slumping. After several courses of the heavy coils had been piled up, one of the perforated cans was filled with live coals and suspended in the cylinder mouth while a second heater was positioned next to its base.

Before leaving the Sŏnggwang Factory, Rinzler momentarily studied several men loading an accumulation of previously fired ware onto their truck. The larger vessels were stacked in piles two-high, the medium-size pieces three-high, while the lids were lined up in overlapping fashion on the ground. Apparently the jars had been standing for a long while, as the men emptied a quantity of rainwater from those on top as they maneuvered them to the waiting vehicle. Lashed together with hemp rope, the pots were laid sideways in the straw-lined truckbed.

* * *

Returning to Kap'yŏng in 1981, we discovered that the old factory by the road had been razed since Rinzler's first visit and that the last of its many owners, Kang Kŭm-sŏk, had left the area to start a new business in South Ch'ungch'ŏng Province. The Talsŏng Factory, on the other hand, was still quietly active, so we stopped momentarily to inspect some interesting ware in the yard: small pouring vessels with leaf resist decorations and a fair number of storage jars and matching lids impressed with the traditional symbol for "good fortune." These, a neighbor informed us, had been commissioned by a merchant in Seoul; rumor had it that they had sold poorly in the capital and that the merchant had failed to claim the remainder of his order.

As during the earlier trip, we devoted most of our time to the third factory, the Sŏnggwang Factory (Figure 46), which had been founded in 1958 by Rinzler's previous informant, Yu Pyŏng-no, and his son, Yu Il-sŏng. Over the decade, the son, born the twenty-fifth day of the seventh lunar month in 1928, had assumed most of the responsibilities for running the business. There were a total of about 20 employees at the site, including 11 wheelmen and five assistants (compared with 10 potters and 20 other workers in 1971). These men were deployed among three separate workshops: the three potters and one assistant in the first building made slender jars for an urban clientele, while eight potters and four assistants, divided equally between the remaining two structures, manufactured the more capacious "country" versions of the same ware.

Half of the employees, including five of the wheelmen, remained from the earlier period, and two of the workers had been at the factory for more than 20 years (Figure 47). Yu Il-sŏng attributed this low rate of turnover to competitive wages. Still, he complained that he was understaffed, that for eight months out of the year his men were obliged to begin their work days during the nocturnal hours, often as early as 2:00 A.M.

Improvements around the yard included two clay processing machines—a rolling mill (Figure 48) and an extruder, linked by belts and pulleys to a 30-horsepower diesel engine—that the younger owner had installed the previous fall. As a result, he no longer washed his clays using the *subi* operation described earlier, nor was he obliged to mound the material in the old labor-intensive manner. Instead, he ground his several different bodies (obtained from Ansŏng in Kyŏnggi Province; from Haptok, Choch'iwŏn, and Sŏnghwan in South

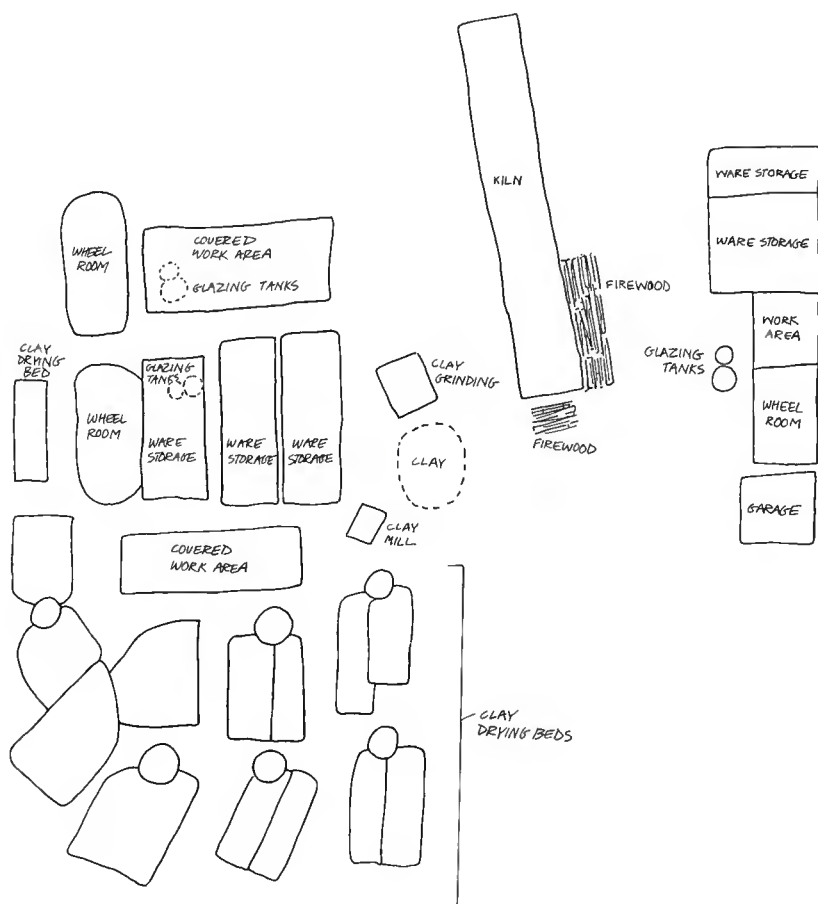


Figure 46. Layout of Sönggwang Factory (no. 3 in Figure 29), 1981.
(Illustration by Daphne Shuttleworth.)

Ch'ungch'öng Province; and from Iksan in North Chölla Province) once or twice through the roller, then pumped a solution of clay and river water via plastic hoses into the old drying beds. Partially dried clods were later cycled through the second machine, which extruded fat coils of processed clay ready for wedging.

The first kiln at the Sönggwang Factory was a cannon kiln (*taep'ogama*) measuring 115 *cha* (38 meters) long, seven *cha* (2.3 meters) wide, and seven *cha* high.⁹ In 1974, father and son built a multi-chamber kiln (*noborigama*) with corresponding measurements of



Figure 47. *Worker's dwelling alongside tributary of Han River.* (Photo by Ralph Rinzler, 1971.)

100, 7, and 5.5 *cha* (33, 2.3, and 1.8 meters). Various features of the new kiln, including a chimney at its upper end, rendered it more versatile than its predecessor in firing the medium and small jars preferred by urban apartment dwellers (Figures 49 and 50). It cost seven million *wŏn* to build this second structure—a figure Yu Il-sŏng said would approach 12 million *wŏn* (\$17,143) in 1981, despite a relative decline in the cost of the tile bricks used to form the walls. It was his recollection that the first *noborigama* in South Korea appeared around 1954 or 1955 near the southeastern port city of Ulsan. At the time of the innovator's death three years later, the design had been adopted by potters in all of the other provinces. (*Kama*, Yu added parenthetically, was his ancestor's term for kiln; some modern workers, on the other hand, referred to their furnaces by a porcelain maker's term, *no*¹⁰.)

The ware was loaded into the *noborigama* over two days. The larger jars, because of their size and thick walls, were positioned next to the firebox and during firing served as heat shields.¹¹ Other large ware was stacked three-high, with ceramic disks (*kong ttukkŏng*) separating the layers. Each disk bore three deep notches that allowed a circulation of oxygen to the smaller jars nested within, thereby elimi-



Figure 48. Rolling mill (rora) at Sónggwang Factory. This machine and a clay extruder are connected by belts and pulleys to a diesel engine. (Photo by Robert Sayers, 1981.)



Figure 49. Chamber kiln (norigama) at Sŏnggwang Factory. Note fuel drops (changgumŏng) above chamber doors. (Photo by Ralph Rinzler, 1981.)

nating the possibility that they would be reduced in the smoky atmosphere. Yu explained: "If [disks] are not used, the surface [of the nested jars] turns black; when used, the pots get a nice shiny red color." Lids were separated with pellets of white clay (*p'yot'o*) that, after unloading, were knocked loose with a chisel (*changdae k'al*, literally "large heavy knife").

Firing occupied six days, during which time Yu Il-sŏng burned only pine wood, as he was not satisfied with the results achieved burning oil. Each stage in the process was given a name, and the entire operation proceeded in a rather formulaic manner. Initially, he warmed the kiln by poking wood splints through small openings along the bottom of the firebox (*hwamun* or *pult'ong*, "gate-door" and "fire chamber"). Each of the 12 ascending chambers (*t'ong*) took two to three hours to warm, so this pre-firing continued for a day-and-a-half. After sufficient time had elapsed, the firemen plugged the small openings, simultaneously unblocking four apertures directly above these; through the latter, they fed the larger slabs of wood. The firing proceeded for several more days before reaching a third stage, *k'ünbul*



Figure 50. *Floor-level vents in wall dividing chambers.* (Photo by Ralph Rinzler, 1981.)

("big fire"), whereupon bundles of kindling were thrown into the firebox until a luminescent red flame surged upward into the ascending chambers. To keep the temperature from dropping off and to facilitate ventilation, an attendant intermittently raked the firebox ashes.

At a predetermined moment (in a sub-phase called *ch'angbul*, "window fire"), 70 or 80 stoke holes (*ch'anggumǒng* or *ch'anggunyǒng*, "window hole") were opened in sequence along the length of the kiln. Additional fuel was passed through these directly into the chambers, thereby moving the zone of combustion slowly upward toward the chimney. The workers, who wore straw hats to keep the heat from their faces, opened the lower ports first, fueled and sealed these with clay plugs, then moved on to the upper ports.

After the last chamber had attained an estimated heat of 1150° C, the fuel drops and firebox openings were sealed and the main fire doused with water. (Kim T'ae-jin, owner of the factory in Seoul, explained that earlier generations of potters had neglected to block these vents and, as a consequence, suffered considerable damage to their ware. His own method was not to seal the apertures completely, as this would have delayed cooling; rather, he blocked them only to the point where wind was denied free access to the kiln's valuable contents.) Three or four days later, all of the factory personnel were mobilized to remove the ware, which they lined up on the ground for inspection.

By the terms of the payment system (called *tcharijae*, "*tchari* system") used at the Sönggwang Factory, the skilled workers were compensated first as members of a team and, second, for their individual production within the work group. Each jar or lid was initially assigned a *tchari* valuation as a portion of a single *tchari*. Thus, for every 25 soup bowls (*t'ugari* or *ttukpaegi*) manufactured by a team of potters and their assistants, one *tchari* credit was assigned (or, as the men themselves would say, "25 bowls equal one *tchari*"). Six water bowls (*yukkae pangguri*, "sixth bowl") were also credited as one *tchari*. One of the factory's kilns held two or three thousand vessels, discounting the lids, for a total "capacity" of 1000 *tchari*. (The largest *onggi* kiln in South Korea, according to Yu Il-söng, accommodated 1100 *tchari*.) Of this total, about one-tenth of the ware would be broken or otherwise blemished, causing its withdrawal from sale. The remaining 900 *tchari* of saleable vessels would form the basis upon which the workers' incomes would be tabulated.

Once the pieces were out of the kiln and had passed inspection, the owner paid 30 percent of the value of the undamaged ware to his potters and 10 percent to their assistants (Figure 51). Another 10 percent was divided among the persons who tended the clay processing machinery and drying beds; these often included women who would, as a rule, accept a smaller share of the total than their male counterparts.

The men kept track of their individual outputs within their work groups as they divided their proportional share a second time. Thus a wheelman who accumulated one-third fewer *tchari* credits than his companions during the period preceding a firing would normally receive a proportionately smaller share of the potters' 30 percent earnings. The potters and their assistants at the factory in 1981 had average incomes of three and two million *wŏn* (\$4286 and \$2857), respectively, during an eight-month work year. In addition, Yu Il-sŏng offered a cash inducement in the neighborhood of one million *wŏn* (\$1429) to new workers at his factory. This, however, was not a recruitment bonus but was a loan that he expected would be repaid over the course of one or more work seasons.



Figure 51. Storage jars recently evacuated from one of the Sŏnggwang Factory's two chamber kilns. (Photo by Ralph Rinzler, 1981.)

This left 50 percent as Yu's share, a portion of which he set aside to pay for clay, fuel, and repairs to his equipment and buildings. Indeed, he alleged that his net income was at times very small, owing to kiln accidents and the vagaries of the weather and the marketplace—the latter attested to by the large accumulation of unsold ware about the premises. Because custom entitled the *onggi* purveyor to take the ware on credit, the owner normally did not see his share of the profits until after *kinjang ch'öl*, the autumn "kinch'i-making season."

Storage Jars and Lids (1981)¹²

<i>settu tchari</i> (3 = 2 <i>tchari</i>)	<i>tasötkae sorae</i> (5 = 1 <i>tchari</i>)
<i>settu tchari</i> (3 = 2)	<i>tasötkae sorae</i> (5 = 1)
<i>pan tchari</i> (2 = 1)	<i>yosötkae sorae</i> (6 = 1)
<i>tchak hang</i> (2 = 1)	<i>yosötkae sorae</i> (6 = 1)
<i>samdüng hang</i> (3 = 1)	<i>yosötkae sorae</i> (6 = 1)
<i>sagae hang</i> (4 = 1)	<i>yölgae sorae</i> (10 = 1)
<i>ogae hang</i> (5 = 1)	<i>yöldasötkae sorae</i> (15 = 1)
<i>yukkae hang</i> (6 = 1)	<i>isipkae sorae</i> (20 = 1)
<i>p'algae hang</i> (8 = 1)	<i>samsipkae sorae</i> (30 = 1)
<i>sipkae hang</i> (10 = 1)	<i>samsipkae sorae</i> (30 = 1)

The Sönggwang potters specialized in the production of storage jars (*hangari*), along with a few soup and water bowls (Figure 52). The table above gives the numerical designations for the food jars (which correspond to their *tchari* values) in descending order of size. Yu Il-söng was somewhat inconsistent in his accounting, using both native Korean and Sino-Korean numerals. There is, in fact, a tendency to apply the Korean numerals in an ordinal sense (that is, in sequencing items as first, second, third, etc.) and the Chinese numerals in a cardinal sense (implying uniqueness, like numbers one, two, and three). Thus when sequencing inanimate objects, the Korean numerals *hana* or *han* (1), *tül* (2), *saet* (3), *net* (4), *tasöt* (5), *yosöt* (6), *ilgop* (7), *yodöl* (8), *ahop* (9), *yöl* (10), *sumul* (20), *sorün* (30), *mahun* (40), and *suin* (50) are applied, followed by the counting suffix *-kae*. The Chinese numbers (which, because they name discrete objects, do not normally take a suffix) are *il* (1), *i* (2), *sam* (3), *sa* (4), *o* (5), *yuk* (6), *ch'il* (7), *p'al* (8), *ku* (9), and *sip* (10), plus the compounds *sibo* (15), *isip* (20), *samsip* (30), *sasip* (40), and *osip* (50). It seems likely that Yu began by naming



Figure 52. Sŏnggwang Factory owner Yu Il-sŏng with numerically ordered storage jars (in descending order of size): *settu tchari* (3/2 *tchari*), *tchak hang* (*hangari pair*), *samdŭng hang* (*third-class hangari*), *sagae hang* (*fourth hangari*), *ogae hang* (*fifth hangari*), *yukkae hang* (*sixth hangari*), *p'algae hang* (*eighth hangari*), and *sipkae hang* (*tenth hangari*). Note the flat, shallow lids and the orchid glaze drawing characteristic of ware produced in Kyŏnggi Province. (Photo by Ralph Rinzler, 1981.)

his jars, but by the time he reached the lids, was counting them. In any event, he deemed both numerical systems acceptable, usage notwithstanding.

The two largest forms, both called *settu tchari* (“3/2 *tchari*” or, stated another way, “three equals two *tchari*”), differed from one another mainly in profile. The second was somewhat trimmer than the first in conformity with the space constraints of an urban clientele. Other names for these two forms were, respectively, *ch'ilbu tchari* (“70 percent *tchari*”) and *pukt'ong* (possibly a variant of *pult'ong*, “fire chamber”), the latter a reference to the jar's placement as a heat shield near the kiln's firebox. For similar reasons the third form, *pan tchari* (“one-half *tchari*,” also rendered “two equals one *tchari*”) was alternately called *pulmegi* (“fire protector”). Its slightly rounder mate, *tchak hang* (“pair of *hangari*”) or *tungŭn tchak* (“round pair”), was the only one of the large vessels to bear handles. (As a rule, the Sŏnggwang potters fixed handles to half of their output in the medium sizes. The two largest vessels, because they would rarely be moved, and the three

smallest never received these additions.) All of the aforementioned vessels, along with *samdŭng hang* ("third-class *hangari*"), were meant to contain winter cabbage *kimch'i*, according to Yu Il-sŏng. Sixth and seventh jars, *sagae hang* and *ogae hang*, were reserved for radish *kimch'i* and the three smallest forms—*yukkae hang*, *palgae hang*, and *sipkae hang*—generally held red pepper sauce and dried seasonings.

The principal embellishment on ware produced at the Sŏnggwang Factory was the dragon line (*yong tti*) with orchid leaves (*nanch'o*) drawn in the glaze. Earlier generations of artisans in the area marked their jars as well with turtle and goldfish lines (*kŏbugi tti* and *pungŏ tti*) and a stylized wild goose (*kirogi*). Yu told us that some older jars also bore factory names and dates although he personally had refrained, with one notable exception, from personalizing his work thus. The exception occurred in 1973 when he had agreed to manufacture a large number of custom flower pots for an Australian client. Each piece was to be modeled after his domestic food jars, except that each was to have a drain hole in its bottom and, on its side, a custom inscription or animal drawing. In fact, it was only through heroic effort that the Sŏnggwang potters were able to complete the order on schedule. Hurriedly packing the ware—which he characterized as "disgusting"—the owner personally drove it to the coast for shipping. Had he missed his appointment, he complained, he would have had to pay for the ship's layover time.

Yu's glaze solution combined five parts of a local clay (*yakt'o*) with two parts pine ash (*chae*).¹³ The workers stirred the mixture (*chaenmul*, "ash-water") in a water-filled concrete tank with a wooden paddle (*komulgae*), then strained it through a sieve (*chaenmul ch'e*) into a second tank. The contents were siphoned back into the first tank; the sediment was discarded into a steel drum, and the process was repeated. Once the basic solution was thoroughly mixed and sieved, a small amount of manganese oxide (*manggan*) was added. Ultimately, the mixture was transferred to a wooden glazing trough or to a ceramic basin (*chabakchi*).

During the Occupation (1910–1945), Yu Pyŏng-no obtained from Japanese suppliers a fourth glaze ingredient—red lead (*kwangmyŏngdan*)—which gave his ware a fine, glossy appearance and, even more important, lowered the peak firing temperature of his kiln from 1200° C to 1150° C.¹⁴ He was still using this substance when Rinzler first visited the Sŏnggwang Factory in 1971. It was not, in fact, until 30 June 1977, following a protest by the Korean Housewives' Consumers

Association, that government health officials took steps to restrict the lead content of *onggi* glazes to levels of less than 0.1 part per million—an action amounting to outright prohibition. To ensure compliance, local authorities were dispatched to the various factories to examine the constituents of their glazes.

Yu Il-sŏng, as it happened, was elected head of the potters' fraternal organization, *Chŏn'guk t'ogiŏpcha hyŏphoe* (The Nationwide Association of *T'ogi* Manufacturers) in 1977 and soon was a principal in the ensuing dispute. After filing a complaint with the government on behalf of his fellow potters, he and a former president of the association had their premises searched by special police—following which event they were interrogated, then incarcerated for 28 days. The Supreme Public Prosecutor's Office failed to prove incontrovertibly that lead glazes constituted a health menace, and the two men were released from jail. Yet the law remained, and after eight months in litigation, Yu lost his appeal.

The younger owner was still exercised over the ruling when we spoke with him. "Such prohibition," he insisted, "was the result of forceful lobbying by a man who spent 500–800 million *wŏn* over 10 years to develop a new glaze. He persistently asked us to use his product, which, after analysis, we found contained [only] silica as well as manganese oxide, *yakt'o*, and other materials. It worked poorly [imperfectly sealing the ware against leakage], and he charged an outrageous price. So we stopped using it. And then this man and his associates brought the lead issue to the attention of the Housewives' Consumers Association, which became angry at us."

Yu Il-sŏng was especially incensed at the 0.1 ppm restriction. "Do you know how they arrived at that figure?" he demanded. "They collected ten vessels in the marketplace and analyzed each of them: nine were less than 0.1 ppm and one had 3.0 ppm. It doesn't make any sense at all. In my opinion, if lead is really harmful, then it must be banned altogether. More outrageous is the fact that other ceramics glazes can have as much as 7.0 ppm—70 times that allowed on *onggi*." During the period of his countersuit, Yu enjoined the Korean Science Bureau and several university professors to analyze his glazes in a dispassionate manner. He added that he was fully cognizant of the harm in lead when used improperly, but he was also given to understand that lead glazes lost their toxicity when fired to temperatures higher than 900° C. Yu had, furthermore, read in a Japanese source about Korean potters of antiquity extracting lead for their glazes: "So the use of *kwangmyŏngdan* is not a new phenomenon."

To avoid continued aggravation and the publicity that invariably followed each fall during *kimjung ch'öl*, Yu ceased using the controversial substance, although he reckoned that were he a wealthier man, he would press his case to a more favorable conclusion. As an alternative, he adjusted upward the proportion of manganese oxide in his glaze mixture. This was an imperfect solution, as the material caused the ware to stick to the kiln floor and also necessitated that the furnace be fired to 1170° C—a not inconsiderable increase of 20°.

Yu Il-söng digressed momentarily from his own story to tell us about his grandfather, a fugitive potter at Tangjin in South Ch'ungch'öng Province during the Persecution: "He was merely a potter and did not own a workshop. During the time of the Taewöng-gun [1864–1873] he had to flee to the deep mountains where he made a living manufacturing pottery. As far as I know, he was the first potter in my family." A devout Christian, Yu was deeply satisfied in the knowledge that "96–97 percent" of South Korea's *onggi* potters and workers were of his faith. Yet even in an enlightened era he saw little end to the hardship.

For a time after the Korean War, he related, producers of *onggi* enjoyed a period of uncommon prosperity. Fortune was short-lived, however; by the 1970s machine-manufactured goods had begun to make inroads into *onggi* sales. Belatedly, many Koreans had resumed using ceramic food jars, having discovered that food preserved in non-transpiratory metal and plastic containers lost much of its quality and taste. Nevertheless, because of generally faltering markets and the lead issue, the owner declared that he, like many of the workers, would not encourage his own offspring to pursue careers as potters. (His three sons, in fact, were away at college studying for other vocations.) The problem, as he saw it, was not simply one of economics. The making of *onggi* was still regarded as contemptible work, even though the artisans were no longer discriminated against for either their occupation or their religious beliefs.

Yu Il-söng counted approximately 350 *onggi* factories in South Korea during his one year term as president of the Potters Association—a figure that he nevertheless characterized as misleading. The vast majority of the factories, he explained, were small family enterprises with wives preparing the clay and husbands turning the wheels. In truth, he felt that 60 or 70 percent of the owners his age would terminate their operations were they able to do so. In 50 years, Yu mused, *onggi* might be a valued collectors' ware; for the time being, however, it had only the meanest reputation.

Owing in part to Yu's comments, historical matters occupied our thoughts for the next several days. As a suitable informant, the owner suggested that we might wish to speak with one of his neighbors, an elderly retired potter named Yang Sam-ok. Before leaving on this errand, however, we stopped briefly at the local winehouse to share pleasantries and cups of rice wine with several of the artisans from the village. In an ensuing discussion of nomenclature, all of the men agreed that, as a general rule, the term *onggi* accounted for most of the different storage and kitchenware forms. In a more specific sense, however, it applied only to a type of low-fired, unglazed earthenware pottery still made in a few localities in Kyōnggi Province, such as Puch'ōn and Kanghwa. This earthenware they contrasted with the modern glazed product, *oji*. The men grew very animated when the conversation turned to the great jars that, reputation had it, were made far to the south. They said that only potters in the Chōlla provinces knew how to construct such pots. They also joked that anyone who boasted of his abilities in making such monumental ware was also the one most likely to abscond with his advance money.

* * *

Yang Sam-ok (Figure 53) was born the eleventh day of the eighth lunar month in 1894 at a workshop in Kwangju-gun. He came to the Kap'yōng area in March of 1955 to assume ownership of a factory built the previous year. Adding to the earlier discussion, Yang characterized the storage jars of his youth as somewhat larger than those made during the modern period, ranging in size from a two *mal* (36 liter) pepper paste jar to an eight *mal* (144 liter) wine or rice drum. (Among other traditional forms, he also mentioned the clear-water jar, which he called *oksu pangguri*, "jade water bowl.") Because Korean villages were organized around extended families and patriline, several households shared the same large storage jars. These were hand-built in the normal coiling fashion, although our informant recalled that in the making of the largest pieces an assistant helped the potter by turning the wheel with his feet. Coal-filled ceramic heaters (*pult'ong*), which preceded the metal cans used during the modern period, were suspended as usual inside the partially-finished vessels.

According to Yang Sam-ok, a skilled potter could make four of the huge wine or rice jars before darkness descended. (The men would sometimes sing to themselves as they worked, Yang reminisced. Occasionally an individual potter would increase the pace of his work relative to his fellows, but this action would usually draw invidious



Figure 53. Retired potter Yang Sam-ok and family near Kap'yŏng, Kyŏnggi Province. (Photo by Robert Sayers, 1981.)

comparisons. "I'm sure the reason you are working so deliberately is not that you wish to earn more money," the others would remonstrate.) After the jars were glazed with a broom or large brush, four persons lifted them onto wooden bats and, after firing, onto mule carts—three to a cart. Owing to a scarcity of hard currency, customers usually paid for such ware in advance, either with rice or with some other household item of barter.

The jars were glazed in a solution of wood ashes and clay, producing a rather dull brown or yellow surface depending on the relative proportions of the two materials. The vines, orchids, chrysanthemums, and birds drawn in the wet glaze provided the kiln attendants with a useful indicator of the furnace's internal temperature, as the exposed clay body differed in color from the glaze. The kilns themselves were of the *taep'ogama* sort, although our informant recalled loading some ware (probably porcelain) into a multi-chamber kiln at Ich'ŏn in the 1930s. The site in later times, he added, was occupied by a celadon revival factory.

It was during the last century, Yang commented, that the Christian potters secreted themselves sometimes inside the great vessels

when the authorities were in the neighborhood; tree boughs instead of ceramic lids covered the jars to prevent their inmates from suffocating. The speaker added that his own grandfather, a poor farmer, was one of the Persecution's victims. He gave his life for his faith, leaving at his passing a widow and two young sons, ages three and seven.

Hiding in the mountains, Yang's father and uncle eventually established their own *onggi* workshop. The two men made the ware and fired the kiln, while their wives and children tended to the clay preparation and glazing. The women also peddled the finished product, carrying the pots to market on their heads. This situation, Yang explained, mirrored the general pattern of his youth where workshops were not only very small—three or four persons generally—but also fairly unstable, clinging to an area's clay and wood resources until these were spent. In cases where itinerants were hired, payment occurred in much the same fashion as during the modern period: 30 percent of the profit from a kilnload of fired ware was divided among the potters, 10 percent went to the assistants, and six or seven percent was paid to the individuals who processed the clay. This left just over half for the owner, a portion of which went toward reprovisioning the workshop.

Much like the potters of 1981, the peripatetic artisans of Yang's day rooted themselves only rarely to one spot. As a young man, he personally moved many times in quest of marginally better pay—often to faraway locations. Invariably (he laughed) the gain was no greater than before. A second hazard of the *onggi* potter's life was the accumulation of debt. Yang claimed that he always refused cash advances, prudent behavior he still recommended to his younger colleagues at Kap'yŏng. Typically, though, such warnings fell on deaf ears. Even though the modern workers drew more comfortable salaries than he ever enjoyed, the money was usually gone by the start of the spring work season and new cash advances were being requested.

* * *

Our next stop, Sani village in Kwangju-gun (*Sani-ri, Ch'owŏl-myŏn, Kwangju-gun*) (Figure 29, no. 4), seemed deserted when we arrived. We learned, however, that there had been a recent death in the village (which, coincidentally, was the birthplace of Yang Sam-ok), so the workers in the four local factories had been given time off to prepare for the funeral. Despite this interruption in the day's activities, we had no trouble locating Rinzler's informant of 10 years earlier.

Sim Sang-un (Figure 54), owner of the Ch'owŏl Factory, was born into a family of Catholic farmer-artisans the tenth day of the second lunar month in 1921. His father, his paternal grandfather, and, according to family tradition, his great-grandfather had all been ceramics manufacturers. In 1930, Sim (pronounced "Shim" in English) moved with his immediate family from Poryŏng in South Ch'ungch'ŏng Province to a factory site at Choam village (*Choam-ni*) near Suwŏn. For almost three decades thereafter, he traveled widely, perfecting his skills, before settling in Sani village.

As a youth, Sim spent many seasons gathering firewood for the neighborhood kilns. He also occupied his spare moments modeling miniature versions of the production ware and on several occasions took a turn on the wheel. More than once, he confessed, he slipped into the workroom while the adult potters were lunching to experiment on their half-finished vessels. Having thus destroyed one of his father's jars, the boy steeled himself for the expected scolding. When the older man reappeared in the workroom, he first surveyed the ruined vessel, then inquired as to the identity of the perpetrator. Hearing his son's confession, he simply said, "Try again." Later the



Figure 54. Sim Sang-un, owner of Ch'owŏl Factory at Sani village, Kyŏnggi Province. (Photo by Ralph Kinzler, 1982.)

father told his son that he should not fear making mistakes, that he had much to learn. At first, the potter's life held little attraction for the boy, but the older man reassured him that, because his mind was sound, he could use his talents to fulfill the needs of many people. Therefore at 17, Sim apprenticed himself to one of the local owners and in time was so fully absorbed in the work that he was an accomplished wheelman within four years, rather than the normal seven.

Shortly before World War II, Sim Sang-un relocated to Hwanghae Province where he remained, off and on, for the better part of a decade. Only a handful of ceramics factories inhabited that northern region, he said, because clay was scarce and because the cold winter and short summer days placed limitations on the work that could be accomplished. As a result, most of the ceramic foodware in Hwanghae Province was imported from the south.

At age 24, Sim joined several other Korean potters in a Manchurian workshop near Harbin where he remained for eight months.¹⁵ Here he supplied local farmers with large unglazed bowls and jars—a common form being a water basin similar to the Korean *mul chabaegi*—as brassware, the alternative, was beyond the limited means of most of the populace. The Manchurian artisans, unlike the Koreans, worked in two-member teams, with one man turning the wheel and the other doing the forming. The potter would command his assistant to “go fast” or “go slow” and the latter would comply. Sim found this production method slow and inefficient and on at least one occasion sought to persuade his hosts to alter their methods.

It was Sim's dissatisfaction with the inferior Manchurian clays more than anything else, however, that brought him back to the peninsula. Still his itinerancy was not finished, for during four or five months preceding the Liberation in 1945, he and two companions labored in a factory in Japan. Later, at the outset of the Korean War, Sim like thousands of other refugees from the North, made Seoul his home, remaining in an *onggi* factory at Ch'ŏnho-dong for about five years before purchasing the concern at Sani village.

Founded some 60 years earlier by one Yŏn Myŏng-hŭi, the Ch'owŏl Factory passed first to a non-potter named Pak No-sŏng. Apparently this man was lacking in business skills, as he transferred his enterprise to Sim's ownership in the late 1950s. Sim also claimed title to a porcelain workshop in the old Punwŏn district when the previous owner defaulted on a loan. A reasonably profitable operation—considerably more so, in fact, than the *onggi* factory—the

porcelain workshop in 1981 drew on the labors of two potters, two ware decorators, and six assistants, who also fired the kiln. Historically, according to the owner, *onggi* and porcelain makers shared similar skills. The chief difference, then as now, was that porcelain potters made smaller, more expensive household items, such as water basins and tableware. In any event, Sim left the management of his porcelain factory in the capable hands of a younger brother.

When he assumed ownership of the *onggi* factory at Sani village, there were but half-a-dozen ceramics workers in the entire community. Some 25 years later, Sim alone employed 60 men, including 21 potters and 12 assistants deployed among four work buildings, each of which he considered a separate factory. Occupying the senior category were the skilled wheelmen (*taejang*), who were also responsible for the exacting tasks of setting and firing the kiln. Indeed, the potters were expected to be versatile in all of the factory's operations, standing in for the other workers as their talents were needed.

Korean dictionaries give *taejang* as "chief" or "military general," which describes well the standing of the wheelman in the workshop. Sim took exception to this rendering of the word, however, referring instead to the Sino-Korean characters for *tae* and *chang* ("big" and "to make something," respectively). The owner explained that any craftsman who stretched or otherwise converted a small object into a larger one was, by definition, a *taejang*. This category included blacksmiths who molded iron but excluded carpenters who divided wood into smaller pieces. A carpenter who made relatively small objects such as doors was called *somok* ("small wood"); a house carpenter, on the other hand, earned the sobriquet *taemok* ("big wood").

Subordinate to the wheelmen was a class of potters' assistants (*kōnakkun*, "men who dry," or *taenmodo* from the Japanese *temoto*, "near at hand") who prepared the clay for use on the wheel and who glazed the finished ware. Few, if any, of these men were construed by the owner as apprentice potters. Rather, they were fully skilled in their own chores and would likely remain *kōnakkun* throughout their careers. In addition, Sim retained 11 *saenggilggun* ("men who make clay"), who cleansed and prepared raw clay (during which operation they were also called *subiggun*) and who carried ware to and from the kiln.¹⁶

The men at this factory—itinerants mostly from North Ch'ungch'ōng Province—worked a customary six-day week; as Christians, they counted the Sabbath as a day of rest. The majority owned

or rented dwellings around the site and were paid on the same *tchari* basis described previously. After the ware had been successfully fired, the potters shared 30 percent of the value of the saleable pieces for average annual earnings of two million *wŏn* (\$2857); the assistants divided 10 percent. Because the workers had their rights spelled out in formal one- and two-year contracts, they were assured of their pay on demand. They were also entitled to cash advances up to 500 thousand *wŏn* (\$714), paid back in installments over the duration of their contracts.

In 1974, the owner replaced all but one of the mud-walled work buildings that Rinzler had seen three years earlier (Figures 55 and 56).¹⁷ He professed no sentimental attachment for the earth-post-and-thatch architecture, allowing only that its main benefit had been its modest cost. Nevertheless, except for the electric lights hanging overhead, the interiors of the new buildings replicated the cramped feeling and look of their predecessors.

Storage Jars and Lids (1981)

<i>ch'ilbu tanji</i> (3 = 2 <i>tchari</i>)	<i>ch'ilbu ttukkŏng</i>
<i>tchak tanji</i> (2 = 1)	<i>ogae ttukkŏng</i> (5 = 1 <i>tchari</i>)
<i>samdŭng tanji</i> (3 = 1)	<i>yukkae ttukkŏng</i> (6 = 1)
<i>sagae tanji</i> (4 = 1)	<i>yŏlgae ttukkŏng</i> (10 = 1)
<i>ogae tanji</i> (5 = 1)	<i>sibogae ttukkŏng</i> (15 = 1)
<i>yukkae tanji</i> (6 = 1)	<i>isipkae ttukkŏng</i> (large) (20 = 1)
<i>p'algae tanji</i> (8 = 1)	<i>isipkae ttukkŏng</i> (small) (20 = 1)
<i>sipkae tanji</i> (10 = 1)	<i>samsipkae ttukkŏng</i> (30 = 1)

Storage jars (from here south called as a group *tanji* instead of *hangari*) and lids (*ttukkŏng*) in production at Sani village mirrored those made at Kap'yŏng. Few smaller forms were made at the Ch'owŏl Factory, Sim explained, as many of these—specifically cooking vessels such as cauldrons, utility bowls, and medicine boilers—required a special heat-resistant body (*koryŏngt'o*) instead of the usual *chŏmt'o*. The only factory he knew of that still produced these forms was at Hyŏpch'ŏn in the Kava Mountains of South Kvŏngsang Province. (As for the distinction between *onggi* and *oji* drawn by the Kap'yŏng potters, Sim offered little elaboration, explaining only that *oji* was a fairly uncommon northern term for glazed pottery; unglazed pottery he called *chil kŭrūt*.)



Figure 55. Interior of workbuilding (kongjang) at Sani village. Note position of potters' wheels under windows and kerosene lamp at far left. (Photo by Raiph Rinzler, 1971.)

In 1971, Sim Sang-un used the tedious *subi* washing operation to remove sand from his several ball clays, which he obtained from Ansong and from Yesan in South Ch'ungch'ong Province at an average cost of 12 thousand *won* (\$30) per truckload. These were first mixed with wooden paddles (*nottae*, "oar") in a square box, then strained into an adjoining settling tank through a fine screen (Figure 57). After repeating this operation several times, the liquified clay was conveyed by a swinging scoop (*pugaji*) to eight straw mat-lined drying beds. Drying was hastened by engraving lines—which the owner likened to the impressed designs on ceremonial rice cake—in the still moist clay. When allowed to crack naturally, Sim felt the material looked "disorderly."

Once the clay attained a leather state, it was broken into manageable clods and conveyed by two-wheeled carts into the workshop for mounding. There it was compressed and shaved with wooden hammers and a draw knife (*ttungme* and *kkaekki*), remounded, then beaten and shaped still further with mallets (*kkodme* or *maet'ong*) and slicing wires (*tchaelchul* or *ch'olsa*, "cut string" and "steel wire"). After a final clay mass had been created, a wooden shovel (*karue* or *nokkarae*) was

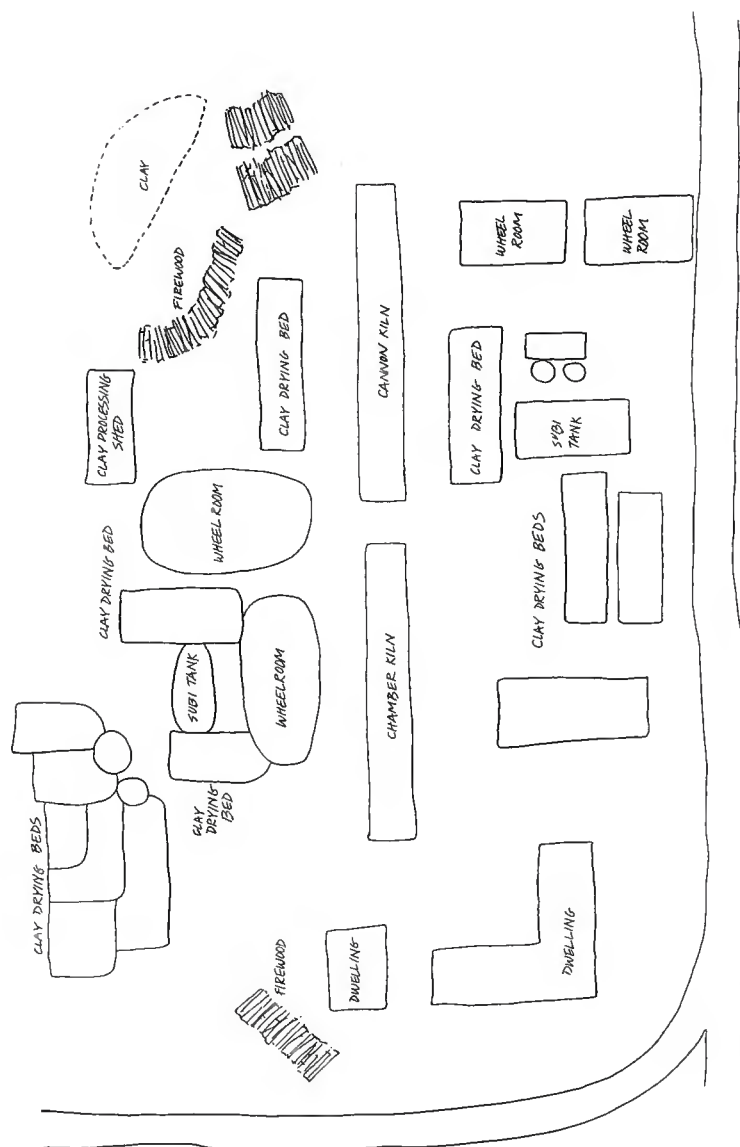


Figure 56. Layout of Ch'ovül Factory at Sani village (no. 4 in Figure 29), 1981. (Illustration by Daphne Shuttleworth.)



Figure 57. Men using swinging conveyance (*pagaji*) to transport clay slurry from settling tank to drying beds. Clay is initially mixed in the rectangular box (foreground), then is strained into the round settling tank. Sim Sang-un in 1981 still processed his clays in this manner before cycling them through a rolling mill and an extruder. (Photo by Ralph Rinzler, 1971.)

used to separate smaller blocks for wedging. Said Sim of this tool: “It is much easier to cut [the mound] with a sickle than with a *nōkkarae*. However, the latter is used because it compresses and solidifies the clay.”¹⁸

During the owner’s youth, we learned, only porcelain workers cleansed their clays using the *subi* operation. *Onggi* clays, for the most part, if carefully chosen, required no similar refinement. Sim and his family spent their winter months, when work was suspended at the factory, searching for sand-free places to dig clay. Washing their feet so as not to contaminate their find with pebbles, they collected several clays of differing characteristics, then, back at the workshop, combined these in layers and cut them into slabs for mounding in the time-honored manner. Pebbles, organic material, and other foreign objects were plucked out of the clay as they were encountered.

Sometime after 1940, one Kim Won-gun, Sim’s cousin and the owner of an *onggi* factory at Kaesŏng in northern Kyŏnggi Province (now part of North Korea), began washing his clays like the porcelain potters.¹⁹ Other owners—particularly those near dependable sources of river water—followed the man’s example until the introduction of

clay processing machinery two decades later permitted them to dispense with hand methods entirely. Sim, for his part, still washed his clays before cycling them through a newly purchased rolling mill (*rola*, "roller") and an extruder (*t'oranggi*), as he felt pulverizing was not sufficient preparation. On the other hand, the machines—which were housed together in a small shed (*kigyeggan*, "machine room")—allowed him to abandon the mounding procedure and thereby reduce his complement of clay workers to three.

Except for minor variations in individual motor habits, the process of forming vessels here—as well as the complex of manufacturing tools—differed in no important regard from that already detailed. The majority of the wheels (the exception being a Japanese-made electric wheel used sometimes for manufacturing small ware) were of the conventional sort modified to accept collar bearings—an innovation Sim claimed to have discovered repairing his automobile (Figures 58 and 59). When questioned about the wheels of his youth, he remembered these as one-piece affairs called *t'ong mulle* ("complete wheel") carved from a single pine tree trunk. Later, as stout trees disappeared from the land, the wheelhead and flywheel were each pieced together from three wooden planks, and the two disks were then joined by four mortised posts. This second instrument (*tchok mulle*, "pieces wheel") could be fabricated by a village carpenter in a day's time, whereas the older carved wheel took three or four days to complete.

Wheel-associated tools included a wooden bottom beater (*pang-maengi*), an incising awl (*mitkasue*), a paddle (*surae* or *puch'ae*, "fan"), an anvil (*t'oge*), a metal trapezoid (*kūnue*), and a shell scraper (*an kūnue* or *chogaebi*). A curved wooden stick (*hwal kūn'gae*) and a pair of charcoal heaters (*pul chabaegi* and *pult'ong*) were also used for manufacturing large, deep jars.²⁰ Finishing tools included a quilted smoothing strip (*mulgajuk*), a stick gauge (*cha* or *chonggumdae*), and a wooden trimming awl (*mokkasue*). Occasionally in forming the rim back on itself, the potter created an air pocket, which he burst on the point of a bamboo splint, then smoothed over with his finger. Completed storage jars were carried off in a cloth sling (*tuippo*); lids, by contrast, were lifted from the wheelhead with what looked like a pair of flexible reeds (*tulch'ae*).²¹

As the various processes were executed, the potter stopped, started, and changed the direction of the wheel's rotation at will (Figures 60a–d). Adding coils and paddling he accomplished with his

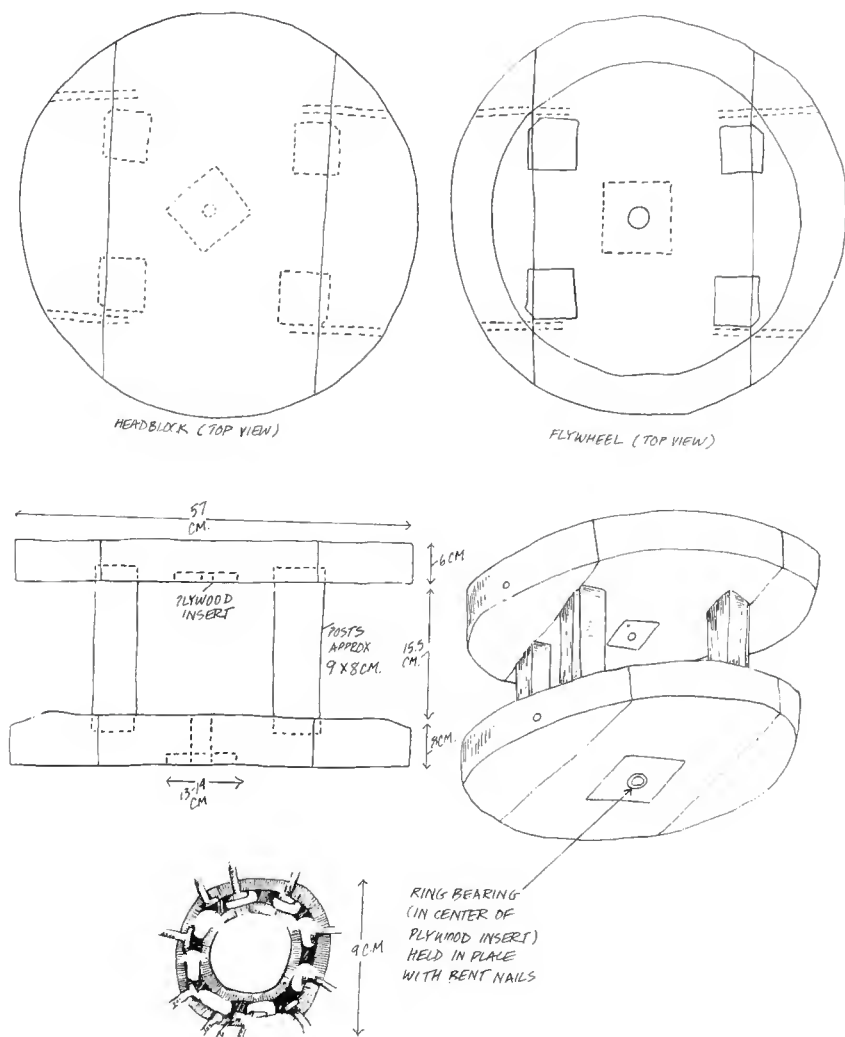


Figure 58. Onggi potter's wheel (mulle). Sim Sang-un brought this particular wheel to the 1982 Festival of American Folklife in Washington, D.C. It is now in the permanent collections of the National Museum of Natural History, Anthropology cat. no. 423109. (Illustration by Daphne Shuttleworth.)

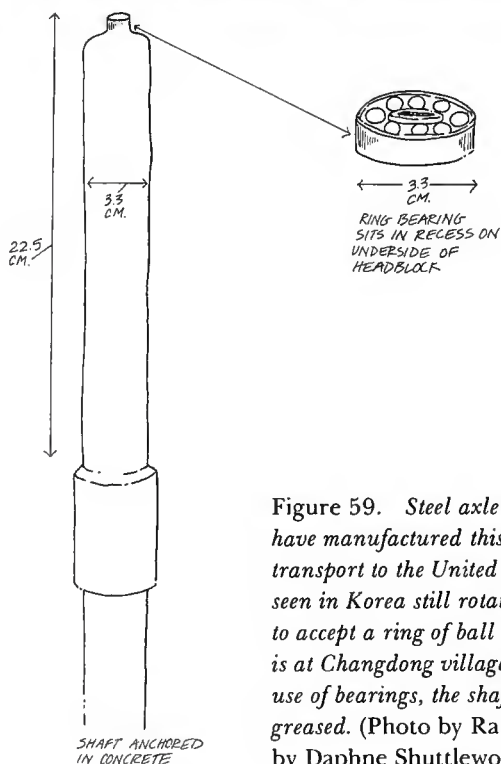
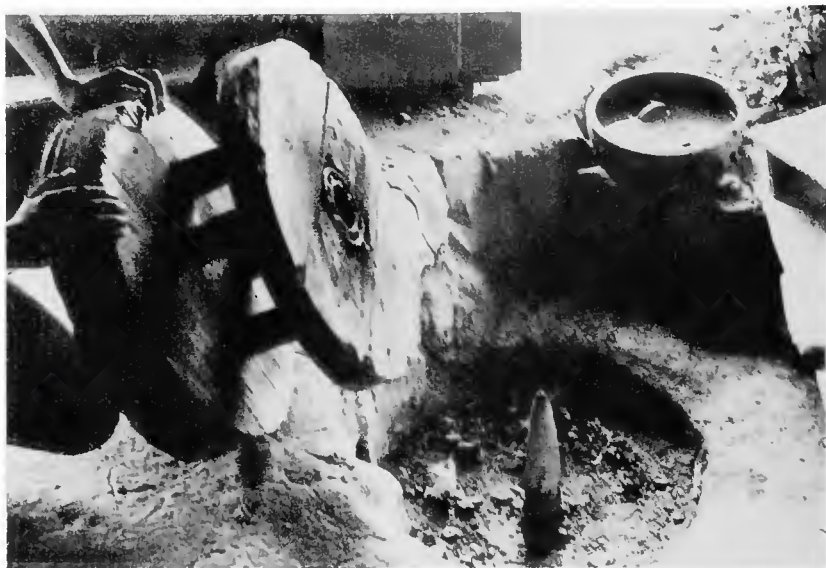


Figure 59. Steel axle of wheel in Figure 58. Sim may have manufactured this axle specifically for ease of transport to the United States. Most of the potters' wheels seen in Korea still rotated on a hardwood shaft modified to accept a ring of ball bearings. (The wheel in the photo is at Changdong village, N. Chölla Province.) Before the use of bearings, the shaft would have been heavily greased. (Photo by Ralph Rinzler, 1981; illustration by Daphne Shuttleworth.)



Figures 60a-d. *Manufacturing storage jar lid.* (Photos by Ralph Rinzler, 1982.)

Figure 60a. *Wire gauge used to inscribe bottom disk.*



Figure 60b. *Coil added around perimeter of disk.*



Figure 60c. *Bottom and sides thinned with metal trapezoid.*



Figure 60d. *Finished lid taken from wheelhead with pair of flexible wooden lifters.*

left heel, pushing the wheel in a slow clockwise rotation. Incising and thinning, on the other hand, were done in counter-clockwise fashion, with the left foot pulling vigorously to gain momentum and the right leg either kicking away or locked in an extended position for stability. This constant braking and altering of speed and direction continued throughout the forming operation. Sim's rationale for changing directions was no more specific than that it had something to do with the placement of his hands—an explanation that perhaps obscures a more significant reason related to the hybrid nature of the Korean coiling-and-throwing technique.

It was our good fortune to witness in this location the making of very small jars, because of a significant variation in the initial manufacturing procedure (Figures 61a–d). In the manner previously described, the potter prepared the wheelhead with a release of white sand. For larger ware, the mass and diameter of the base and the adhesion created by water in the sand limited any shifting. This was not so, however, when making smaller pieces. Therefore, instead of incising the disk after flattening it and taking the excess away, the potters at Sani village left the disk intact to provide a doughnut-shaped support ring upon which they built the vessel wall. Finishing one small jar, a potter would inscribe around its base and carry it away. The



Figures 61a–d. *Fashioning small storage jar.* (Photos by Ralph Rinzler, 1982.)

Figure 61a. *Center of existing support ring filled with clay.*



Figure 61b. *Coil flattened before being mounted on base.*



Figure 61c. *Coil in place.*



Figure 61d. *Shaping vessel wall. At conclusion of process, potter trims around jar's bottom, leaving support ring intact for next jar.*

center of the “dougimut” was then filled in with more clay and the next jar was made.

Sim's glaze contained approximately equal parts (7 : 10 to 10 : 10) of pine or plant ash and a “rotten” sand-clay (*yakt'o* or *chinhuk*) mined near Yangsan in South Kyōngsang Province. To these he added a smaller amount of manganese oxide as a flux and colorant. A decade earlier, he had also fluxed his glaze with five kilograms of red lead, which altered his ash and binder proportions to 1 : 2. The owner at the time did not think that the lead oxide, which he had been using since around 1950, was particularly dangerous. Even before the government prohibition took effect in 1977, however, he was experimenting—at some risk, as he told it, to his kiln and ware—with other materials.

The conventional term for the glaze solution, *chaenmul* (“ash-water”), derived from the name villagers formerly gave homemade lye soap, although fashion had recently coined an alternative name, *yuyak* (probably a variant of the Japanese *yūyaku*). After the glaze solution had been thoroughly mixed with wooden paddles (*tanggurae*), it was applied to the vessels by the potters' assistants. These individuals,

who worked in the shade of a brush-covered arbor (*kōnjosil*), first rolled the jars about in a plastic basin filled with the solution, then set them upright and, with a flourish, added the orchid (*nanch'o*) design. Some years earlier, potters in the region substituted a series of scallops (*chogae kŭrim*, "shell picture"), according to Sim, but this particular design was now extinct. Nothing about either the glaze embellishments or the underlying rings and wavy line (*tti* and *yong tti*)—or a string of diamonds (*torangt'ae*) the potter applied with a carved roller stamp of the same name—had any specific meaning, he continued, although it was proper that the rings be placed just above centerline where they would be most visible and yet not be obscured by the vessel's lid. Customers in Seoul desired complex designs, so he continued to decorate his ware in the expected manner. Once glazed, the jars were returned to the shade of the drying shelter. Periodically an assistant moved the vessels into the sunlight, alternately inverting, then righting them so that they dried evenly.

Sim Sang-un succeeded Yu Il-sōng of Kap'yōng in 1978 as president of the five-year-old Potters' Association. The Association communicated with members by postcard when important matters arose and held regular officers' meetings at its headquarters in the Sinsŏl-dong area of Seoul (Appendix A). In addition to monitoring penalties meted out to colleagues for infractions of the law, members exchanged ideas and techniques and circulated information on the availability and cost of raw materials. Sim, as disturbed by the lead controversy as the other owners, was still reluctant to break the law. Said he: "Since most *onggi* potters are Catholics, we are a very conscientious people." Virtue, he added, extended to the sharing of glaze formulas and other information that might in other circumstances be construed as trade secrets.

The two kilns at the Ch'owŏl Factory, a cannon kiln built around 1967 and a 12-chamber *noborigama* built three years later, remained undisturbed from the time of Rinzler's first visit (Figure 62). The owner preserved the *taep'ogama* because its long, tunnel-like chamber was best suited for stacking large cumbersome jars. It differed in no way from kilns he had seen during his youth (and in Manchuria in the 1940s) and went by the alternate names *onggigama* and, in the far south, *tonggama* ("hole kiln"). Scholars, Sim added, called the cannon kiln *hwalchuksik kama* ("split bamboo-style kiln") in recognition of the fact that its visible portion looked like a length of bamboo parted longitudinally through the center.²²

A native of South Ch'ungch'ōng Province, the owner was also

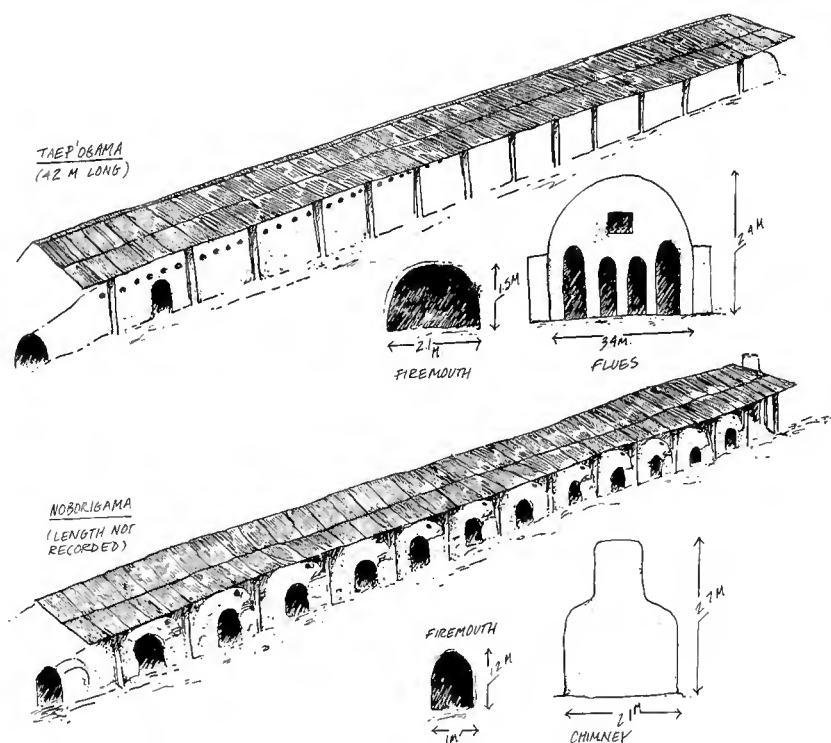


Figure 62. Cannon and chamber kilns (taep'ogama and noborigama) at Ch'owŏl Factory, 1981. The owner, Sim Sang-un, retained the old-style cannon kiln for firing large ware. (Illustration by Daphne Shuttleworth.)

familiar with an important regional variety of cannon kiln. This L-shaped structure, which he called a *chodae pult'ong* ("pipe fire chamber"), earned its name from an offset firemouth that gave it something of the appearance of a long Korean tobacco pipe. Apparently the potters in Ch'ungch'ŏng Province felt it necessary to deflect the heat of the firebox around a corner to avoid damaging the ware in the longer part of the kiln, even though this arrangement was excessively wasteful of fuel. When Sim was 10 or 12, the firemouth portion of a *chodae pult'ong* in his hometown of Poryŏng collapsed, leaving only the long tunnel. When it was discovered that a fire burning at the structure's head was no more hazardous to the ware than one contained at right angles, the "pipe kiln" fell out of favor and was gradually retired from use.²³

Our informant credited the introduction of the chamber kiln to the owner of a large ceramics factory at Nagasaki, Japan. Visiting the peninsula around 1949, this individual brought the design to the attention of coastal potters at Namch'ang in South Kyōngsang Province. Korean porcelain workers already used a smaller chamber kiln before this time, but the larger version—and the *noborigama* appellation—Sim felt were unquestionably of Japanese origin.²⁴ Though more costly to build than a *taep'ogama*, he contended that the chamber kiln provided better heating control than its predecessor.²⁵

The Ch'owŏl Factory kilns had similar firing schedules: two days for loading, five days for firing, one day for cooling, and two more for unloading. Until 1978, the kilns burned a combination of wood and oil; a subsequent rise in the cost of the latter fuel, however, had necessitated a return to wood alone. Setting the kiln and other critical operations were tasks claimed exclusively by the potters who, for this work, assumed the new title *hwabu* (literally, “men who handle fire”). The jars were nested as described elsewhere, then stacked horizontally inside the sloping structure on clay or stone pads.

Once the entryway and chamber doors had been blocked with clay, a small fire was set in the kiln's firemouth. This 60-hour pre-firing phase (*p'uinbul*, “beginning fire”), warmed the kiln to a uniform 200° C while purging the structure of moisture. Concerning the next, more critical phase, *chungbul* (“middle fire”), Sim called to memory two aphorisms he had learned during his days as a young apprentice: “The hunter should be quick; for the potter, the fire should be slow,” and “When the fire is slow, one eats; when the fire is quick, one fails.” During the first two or three hours of *chungbul*, therefore, the firemen cautiously added fuel to the blaze in small increments to prevent the pots' shattering. Through the remainder of the phase (which totaled 40 hours), the fire was stabilized at around 500°–600° C.

Chungbul was followed by a 30-hour phase, *k'ünbul* (“large fire”), during which the attendants heaped great quantities of pine wood and brush on the fire. To maintain an internal heat of 1000° C, they cleared away an accumulation of firebox ashes while redistributing the remainder for better ventilation. Toward the end of *k'ünbul*, 70 or 80 fuel drops (*ch'anggunyōng*) along the length of the kiln were opened in sequence, starting with those at the bottom, in anticipation of a final sub-phase, *ch'angbul* (“window fire”).

During *ch'angbul*, wood splints were passed through the openings directly into the chambers where they vaporized or slid harmlessly

between the white-hot vessels. The number of sticks placed in any one opening was carefully calculated, according to the speaker: "When one makes *ch'angbul*, one must count the exact amount of fuel used. [The firemen] may appear to be throwing wooden sticks into the holes at liberty. This is not the case, though, since even a single branch makes a great difference in producing good jars." As the firemen moved up both sides of the structure, an assistant followed close behind, sealing off each previous fuel drop with a clay plug anchored on the end of a long pole. By the time the men reached the top of the kiln, its internal temperature should have peaked at just under 1200° C. At this point, the sweating, tired workers ceased their exertions.

With the firing terminated at the firemouth and along the length of the kiln, the men sealed the remaining openings, including the chimney flues at the upper end. Cooling continued for 40 hours. At length, the jars were unloaded, then assembled on the ground in clusters of ten for counting. In concluding his description of the firing process, Sim offered: "Because of the special characteristics of the clay and glaze, the potter has to be very exacting. The most important asset a potter can have is conscience. He owes it to his customers to fire the ware in such a manner that food stored in it will not go rotten or stale." He then added: "The whole process of making *onggi* may look easy. But as you can see, each step takes caution. It is a difficult job."

At the time of our visit, Sim Sang-un was preparing for his sixty-first birthday, a milestone marked with great celebration in Korea. He had not made any ware personally during the preceding decade, but guessed that a few of his pieces might still be about the premises. During his six decades, Sim told us, he had seen numerous changes in the industry. When he was very young, only Christians made *onggi*, and he grew up hearing family members speak of the earlier troubles.

Between 100 and 200 years ago, many Christian missionaries came to Korea. The king did not want the people to believe in the new religion because he thought there should be only one national religion. Many of the missionaries died and others were forced to flee to the mountains and forests. While hiding, they made clay pots with their hands which, because they had no [kiln or] glaze whatsoever, they baked in the sun.

Among the earliest of the convert potters were members of the nobility, who in their new guise suffered the same indignities as those visited on butchers and dung collectors.

Before that time there were lots of others making pots. But these [Catholics] in the mountains, they were beginners. When they came down, they devoted themselves to this business—the only skill they had was making pottery—and in time such dedication led to a better-quality product [than the other potters produced].

With the passing of the Persecution, the Christians—who by this time, Sim noted, included a few Baptist converts—emerged from their hiding places and pursued their work in relative safety, this despite a seemingly unending series of convulsive events. Unless they inadvertently wandered onto a field of battle, their degraded condition as much as their technical skills protected them in a curious way from molestation.

The owner, like Yu Il-sŏng at Kap'yŏng, characterized the early 1970s as years of record prosperity for the potters—a boom he attributed largely to a postwar population explosion and a concomitant demand for foodware. There were, he said, as many as 400 *onggi* factories dispersed throughout the country's nine provinces at the time.²⁶ Intractable inflation and the appearance of inexpensive plastic ware in local markets soon dealt the pottery trade a serious setback, however. The years from 1977 to 1980 were the worst, Sim continued, with materials costs accelerating rapidly, just as demand for the ware sank to a record low: "People who feel affluent make more *kimch'i* and use more spices. But because of inflation, people are not buying." The result was a large number of factory closings, leaving in 1981 only 200–250 remaining.

The speaker was nevertheless philosophical about all of this. When we noted that many American consumers had belatedly found inspiration in handmade objects, his reply was "Americans like handmade things, Koreans like machine-made." The difficulty, as he saw it, was that the coarse *onggi* clays did not lend themselves to mechanized production methods; ceramics manufacturers were thereby disadvantaged relative to producers of plastic ware. Yet he was reasonably

optimistic that his business would rebound when consumers learned to recognize the shortcomings (principally, the impairment of flavor) inherent in the new containers. As a result, he had recently begun to make long-overdue repairs to one of his auxiliary buildings.

At the same time, Sim reiterated that his occupation called forth no such emotions as pride or achievement in the normal sense. Indeed, the workers' coarse language and earthy humor marked them as individuals of low breeding. When asked whether his men ever found a creative outlet in their work, the owner deferred to the practical goals of the production potters—namely, the impetus toward standardization, both out of market considerations and to ensure that the ware would stack properly in the kiln. He felt, on the other hand, that the opportunity to make ware of varying sizes, shapes, and rim styles added some variety to the artisans' daily routine.

Like his charges, Sim was not well educated in a formal sense, although he cared to think of himself as "down-to-earth" and a good teacher. If he derived any satisfaction at all from the work, it was when he introduced an apprentice—including a Japanese student who stayed at his house for five months in 1981—to the subtleties of firing a kiln.²⁷ At monthly meetings of the Potters Association, he also lectured to the younger owners about all aspects of the business.

In recent months, Sim had volunteered to take three unemployed youths, ages 18, 19, and 22, into his shop as apprentice potters. He noted that a fair number of coil makers were always to be found; capable wheelmen, on the other hand, were far more difficult to recruit. Therefore, he promised the three that he would subsidize their learning if they would apply themselves to the work with more than the usual alacrity. In the final analysis, the owner had this to say: "I have not been particularly successful [financially], but it has been gratifying to train a lot of others. I plan to continue making *onggi* until the moment I die, and to train more potters. I would like to do good things for others."

* * *

We followed a poplar-lined road of dirt and gravel through rolling terrain, passing farm carts pulled by small tractors, on our way to Kaya village (*Kaya-ri*, *Kangch'ŏn-myŏn*, *Yŏju-gun*) (Figure 29, no. 5), eight kilometers north of Yŏju. Off to either side of the trail were rice paddies and thickets of mulberry trees. Within the village itself were clusters of farm dwellings—half with red tile roofs and half with thatch (recently covered with sheet metal)—surrounded by vegetable

gardens. Beds of red peppers, drying in the sun, covered many of the roofs. The peaceful setting, in fact, was not much changed from nine years earlier, when the local farmers chose the very moment of Rinzler's arrival to descend the mountainside with their grass-laden packframes. Just under half of the villagers at that time were Catholics, while the rest were Buddhist or claimed no religious affiliation. All told, about 10 of Kaya village's families were active in pottery-making, and their homes were clustered together at one end of the settlement.

Over some 70 years the local ceramics factory, according to its proprietor Pak Sun-hyōng (Figure 63), had changed hands approximately seven times. Most of the previous owners were working potters, although both he and his immediate predecessor (who after six or seven years tired of the business and moved to Seoul) were not. Pak, a farmer and carpenter born at Changhowŏn the eleventh day of the ninth lunar month in 1919, purchased the factory around 1969 to better provide for his family of nine. Indicative of his standing in the community, the owner was also head of the five-man village council, a post he had held for four years.

The factory in 1972 comprised eight buildings: a mud-walled



Figure 63. *Factory owner Pak Sun-hyōng at Kaya village, Kyōnggi Province.*
(Photo by Ralph Rinzler, 1972.)

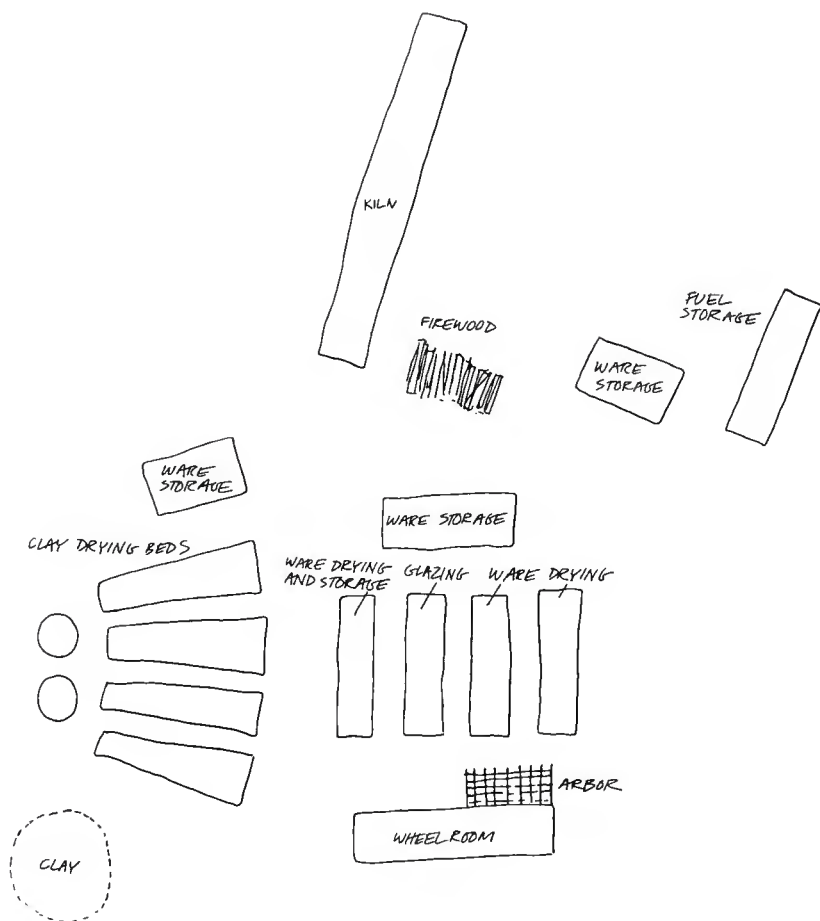


Figure 64. *Layout of Kaya village worksite (no. 5 in Figure 29), 1972.*
(Illustration by Daphne Shuttleworth.)

work building for the wheels and mounds of turning clay, four storage huts, and three brush-covered arbors for glazing and drying the ware (Figures 64 and 65); these, with the land and kiln, had cost Pak upwards of one million *won* (\$2500). After paying off his initial purchase loan, he borrowed additional money to outfit the main building with a new metal roof and to make repairs to the others. Despite these expenses, the factory under his stewardship was showing a fair return of about 50 percent annually, but the owner was not completely free of financial problems, because he allowed purveyors



Figure 65. *Kiln arch form hangs on side of work building at Kaya village.*
(Photo by Ralph Rinzler, 1972.)

to take ware from the site on partial credit and did not see a profit thereafter until late fall.

For these and other reasons, Pak found it impossible to increase the scale of his operation. He employed six potters and four assistants plus two temporary laborers who prepared the clay and assisted the others loading and unloading the kiln. Most of the workers tended small farms locally (leased from their employer), although a few itinerants rented rooms through the pottery-making season beginning in March. While Pak desired to increase the number of potters to eight or nine, he calculated that each additional wheelman would add 300 thousand *wŏn* (\$750) to his year's expenses for fuel and clay. An increased number of potters would also have necessitated the installation of additional wheels and the hiring of more assistants to make the clay bases and coils—something that his budget simply would not allow.

The same distribution of revenue held as in previous examples. After firing a kilnload of ware, the potters and their assistants split 30 and 10 percent of the value of the ware, respectively, while the unskilled hands shared a single payment of 25 thousand *wŏn* (\$63). To provide for the wheelmen until payday, Pak advanced each man

between 20 and 40 thousand *wŏn* (\$50–\$100), which was then subtracted from his share of the kiln's yield. Each worker certified with his personal stamp a contract that was thereafter renewed on a yearly basis. In the event of illness, the contract was voided, although the expectation was that a man's "sponsors" from among the other employees would assume his repayment obligation. In actual practice, Pak generally allowed a disabled worker to leave with his indebtedness forgiven. Toward the close of *kimjang ch'öl* in late November, when work had ceased in the factory and all accounts were settled, the owner renewed the contracts of his nine or 10 best workers and dismissed the rest.

Pak retained one of the potters, Kwŏn T'ae-bung, as manager on a day-to-day basis. Kwŏn, like the owner, started life as a farmer, but eight years earlier at age 36 had begun making pottery for the possibility of a greater income. Starting the work at such an advanced age, he indicated, was a rather unusual occurrence; normally a potter began his training around age 19 (never younger than 14), progressed through a three-year apprenticeship of odd jobs, then worked a year longer on the wheel before drawing a full wage.

Ware made at Kaya village differed little from that seen previously (Figures 66–70). Nevertheless, one new bit of information emerged from a discussion of the different forms: namely, that one of the storage jars assumed the ritual name *p'aju hangari* when filled with newly harvested rice and placed on the *changdoktae*; in this capacity it ensured bounty and protected the home.²⁸ All of the ware was made by coiling, using the normal complement of tools, including the bottom flattener (*pangmangi*), the paddle and anvil (*surae* and *t'oge*), several metal shapers, a curved stick, and a pair of tin-can heaters. The wooden tools were all fashioned from persimmon wood taken from the north sides of trees, as it had the least tendency to adhere to the clay.

Advance preparation included cleansing the raw clay in settling tanks (Figures 71 and 72) and compacting it into large mounds. Pak mined a fairly rough ball clay on a neighbor's property, which he combined with a more plastic Ansŏng clay in a 2 : 1 proportion. Each spring he purchased 40 truckloads of the latter substance at a price of 13 thousand *wŏn* (\$33) per truckload (5000 *wŏn* for the clay and 8000 *wŏn* for shipping). Once formed, the ware was glazed in a mixture of four liters of local *yakt'o*, seven liters of pine or mountain grass ash, and an unspecified, but considerably smaller, quantity of red lead.



Figure 66. *Potters' assistants in work building pounding and shaving clay mounds.* (Photo by Ralph Rinzler, 1972.)

Pak's clay-and-straw brick cannon kiln (Figure 73), which was completely exposed to the elements except for a lean-to of saplings covering its mouth, had a more primitive character than kilns seen previously. It was fired six or seven times a year; because of its exposed state, however, it was left unused during rainy weather. At these times, the workers were put to other tasks, such as stacking ware.

The complete firing cycle lasted the better part of 11 days, including two days to load the kiln, five for the actual firing, and four for cooling. The men began setting the kiln at 4:00 A.M. and worked through the day until 7:00 in the evening, stopping only for a dinner of fish stew and rice wine furnished by the owner's wife (Figures 74–76). (A normal workday in the shop, by comparison, started at 5:00 A.M. and ended at 7:00 P.M.) A second day of loading lasted from 2:00 A.M. until 6:00 P.M., with firing starting an hour later.

The routine nature of the preliminary stage was evident in the behavior of the kiln's lone attendant, who was found napping inside the kiln's firemouth between two small warming fires (Figure 77). After the preheating was finished, however, this man and his co-workers deported themselves in a more attentive manner. The kiln



Figure 67. *Potter's assistant fashioning bottom disks.* (Photo by Ralph Rinzler, 1972.)

was fueled mostly with timber, although a small amount of oil was also added at the moment of peak heat. During the evening of the fifth day, the workers opened 50 fuel drops lining either side of the kiln, plying each with about 15 pieces of wood. After attaining a temperature of 1200°C , the kiln was sealed and left to cool.

Yields varied with the season, according to the owner, as more vessels were prone to breakage during the rainy summer months than during the corresponding spring and fall work periods. His record yield was around 1000 vessels, large and small, producing a gross profit of 700 thousand *wŏn* (\$1750). More typical yields, on the other hand, ranged in the neighborhood of 500–600 thousand *wŏn* (\$1250–



Figure 68. *Potters manufacturing large rice or wine jars. Charcoal-filled heaters (foreground and suspended in vessel) stiffen cylinder wall as artisan works. (Photo by Ralph Rinzler, 1972.)*



Figure 69. *Curved stick extends potter's reach during making of large vessels.*
(Photo by Ralph Rinzler, 1972.)



Figure 70. *Potter and assistant carrying jar to brush-covered drying shelter.*
(Photo by Ralph Rinzler, 1972.)



Figure 71. *Clay washing tanks and drying beds at Kaya village. The clay is passed through the strainer in foreground enroute from the square mixing box into the circular settling tank. (Photo by Ralph Rinzler, 1972.)*



Figure 72. *Worker inscribing clay beds to hasten drying and to facilitate later handling of material. (Photo by Ralph Rinzler, 1972.)*



Figure 73. Cannon kiln at Kaya village. This small, uncovered structure, vented through five flues at the upper end, seems to be the archetype for Korean onggi kilns before ca. 1970. (Photo by Ralph Rinzler, 1972.)

\$1500). After the ware was unloaded from the kiln, it was trucked to nearby Wŏnju for sale.

* * *

On our way back to Kaya village in 1981, we stopped overnight in Ich'ŏn, a thriving farm town distinguished by several new hotels and commercial buildings. Of two semi-permanent *onggi* vendors in town (temporary roadside stands also appeared during *kimjang ch'ŏl*), the one we visited was situated in front of the provincial hospital, a location it had occupied for three or four years. The proprietor of this shop explained that she handled ceramic ware for a factory owner near Changhowŏn. She paid the lading herself and, accepting no responsibility for damaged goods, received a commission of 20 percent on sales. A cursory inspection of the woman's stock revealed little that was new or novel. The ware in the yard consisted, in the main, of medium-size and smaller storage jars. The absence of larger ware was charged to the shrinking size of the Korean family. Before leaving, we noted an interesting tool called *morae milgae* ("sand pusher"); fashioned from a broken sickle, it was used to scrape pellets off the bottoms of the jars (Figure 78). Many of the other vendors used a hand-size pebble for this purpose.

An unexpected sight awaited us when we finally arrived in Kaya village: the area where the factory had stood nine years earlier was now a cornfield. Pak Sun-hyŏng was down by the river fishing and, until he was located an hour later, we inquired of his wife, Yun Pok-



Figure 74. *The ware is carefully nested in a predetermined order. (Photo by Ralph Rinzler, 1972.)*



Figure 75. *After nesting, the ware is stacked inside the kiln on clay or stone pads with ceramic disks separating the layers. (Photo by Ralph Rinzler, 1972.)*



Figure 76. Kiln setters and their wives enjoying a late afternoon repast. Note the plastic and metal serving and eating utensils. (Photo by Ralph Rinzler, 1972.)



Figure 77. *Kiln attendant napping inside firemouth between warming fires.*
(Photo by Ralph Rinzler, 1972.)

nyŏn, about the change. By her account, the former manager, Kwŏn T'ae-bung, had died around 1974, precipitating the departure of many of the workers, a number of whom had taken their advances with them. For this reason and because of slowing sales, her husband was able to maintain the factory but four years longer. In 1978, he fired his last kilnload of ware and began to demolish his work buildings; the last was torn down the year prior to our return. As a result, the nearest *onggi* factory was the one at Changhowŏn. Most of the remaining workers disappeared after this time, although a few stayed on as tenant farmers. Said Pak after he was finally located: "Since they make their living with their skills and I make mine by leasing the land to them, we have no reason for bad relations."

Kaya village in the interim had experienced dramatic changes beyond the loss of its pottery factory. Power lines were routed to this rural area in 1973, allowing for such amenities as electric lights, fans, and, most important, motorized water pumps, which extended the arable land into the foothills. Yet, ironically, this was also a period of population decline. By 1981, a quarter of the original 80 households were standing vacant, their owners having moved to Seoul. No one had yet returned, so Pak assumed they were successful in their new



Figure 78. *Scraping tools (morae milgae) used to clean sand and pebbles from jar bottoms. (Photo by Ralph Rinzler, 1981.)*

lives. Indeed, even his own children were in the capital, attending school or making a living as taxi drivers and construction workers. The children visited their parents occasionally, but even the eldest son, who would eventually inherit the farm, had no plans for a permanent repatriation to his native village.

Pak had retired from his post as village chief and now spent most of his time farming and making repairs to his 40-year-old dwelling. The original mud-plastered walls and mortised timber supports had been sheathed in lime stucco, and the thatched roof concealed beneath a layer of corrugated metal. Inside, a refrigerator and a television set

took their place among the mostly traditional furnishings (including saints' images tacked to the walls). Outdoors, plastic tents, showing the influence of the 4-H counselor and the agricultural extension agent, covered the owner's vegetable garden. Only a few appurtenances about the courtyard and outbuildings—a packframe, a hand-made broom, and a few old-style baskets—remained as symbols of the pre-industrial Korea. Our informant lamented the passing of many of his contemporaries who were either deceased or living in Seoul; despite importunings from his eldest son, however, he seemed content to live out his life in Kaya village.

South Ch'ungch'ŏng Province

Since 1932, Taejŏn has been the administrative and manufacturing center of South Ch'ungch'ŏng Province (*Ch'ungch'ŏng-namdo*) as well as an important rail hub linking Seoul with the eastern seaboard. It is, at the same time, an island in a green sea of rice paddies and intensively cultivated vegetable fields. Rinzler's 1972 field notes remark on the multitudes of traditionally attired men and women, young and old, leading ox carts along the main road or loaded down with bulging packframes, slings, and baskets. To either side of the road, young people carried metal pots of warm, steaming food to family members as they toiled in the fields. Nine years later, little of the rural flavor of the province had changed, despite the fact that traditional dress was seen only on the older generation, while younger men and women wore simple western clothing, military camouflage outfits, or blue and white school uniforms.

The trail, this time, took us to the Kŭmnam Factory—a handsome collection of earthen and masonry buildings at Yongdam village (*Yongdam-ni*, *Kŭmnam-myŏn*, *Yŏn'gi-gun*) (Figure 29, no. 6), 24 kilometers northwest of Taejŏn. The only surviving ceramics workshop in the area, this three-decade-old factory projected a relatively prosperous appearance (Figures 79–81) that disguised somewhat the melancholy train of events that had actually taken place since 1972.

It seems that, at some point after Rinzler's first visit, the founder's son (and owner), Chu Hak-kyu, sold the factory to four of his employees, each of whom contributed two million *wŏn* toward the purchase

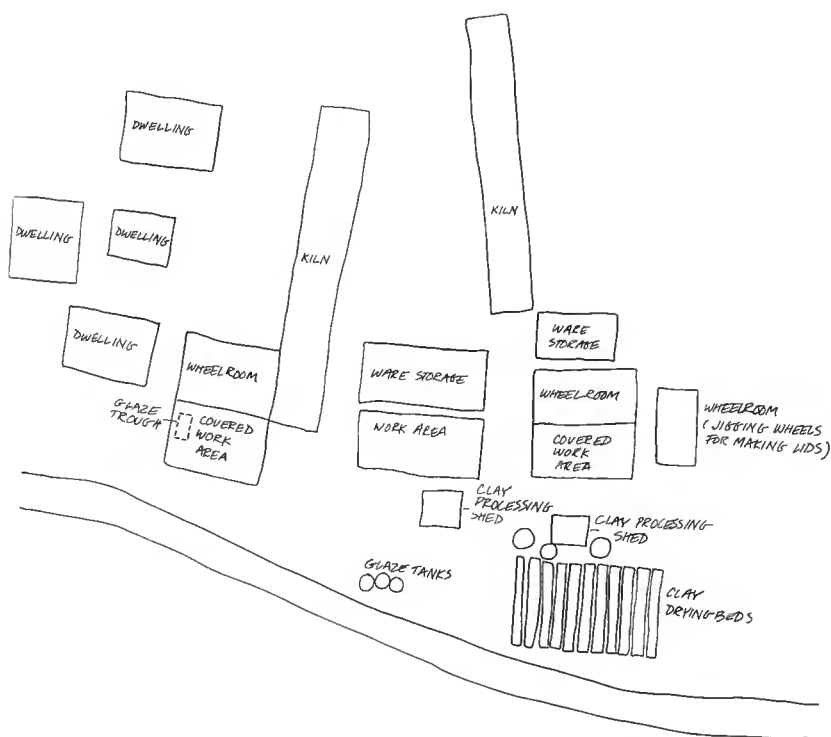


Figure 79. *Layout of Kūmnam Factory worksite at Yongdam village, S. Ch'ungch'ōng Province (no. 6 in Figure 29), 1981. (Illustration by Daphne Shuttleworth.)*

price. Their efforts to sustain a successful operation, however, were undermined almost from the start by a series of unfortunate accidents. First, a young child fell into a clay mixing tank and drowned. Adding to the troubles, one of the workers lost his hand in a machine, and the new owners found themselves obligated to make restitution for the loss. Bankruptcy followed, and the factory reverted to Chu, who in 1980 leased it for five years (at an annual rent of 1.5 million *wŏn*) to an outsider and retired to a farm in the village.

Born 5 May 1941 in North Kyōngsang Province, the new proprietor, Yi In-gyu, had for 20 years manufactured ceramic ware (including refuse receptacles for export to Hawaii) near the southern port of Ulsan. Even though none of his forebears were ceramics workers, he subscribed to one of the Protestant Christian faiths—the religious affiliation, he said, of many of the artisans along the coast. In 1981,



Figure 80. *Proprietor's dwelling, Kūmnam Factory. By 1981, this house had been replastered and whitewashed. (Photo by Ralph Rinzler, 1972.)*



Figure 81. *Storage shed for unfired ware. (Photo by Robert Sayers, 1981.)*

Yi employed nine potters, four assistants, and five unskilled helpers (compared with his predecessor's 18 potters, nine assistants, and seven clay workers), who labored nine months out of the year, starting each morning around 5:30 A.M. (Figure 82). Three of the potters lived rent-free on the factory grounds, while the rest had dwellings elsewhere. According to the proprietor, the housing entitlement varied little from one factory to another; the skilled workers were guaranteed company dwellings or, failing that, could rent rooms away from the factory at the owner's expense.

Earlier in the day we had viewed in a Taejŏn ware vendor's yard a collection of stout, large-domed storage jars (*tok*) with sweeping glaze designs representing not only the orchid plant but also banana leaves (*p'ach'o*), plus a varied assortment of rice steamers (*ttök siru* or *kosa siru*),²⁹ water bowls (*chöngsu tanji*), rice cauldrons (*pap sot*), and grain-washing basins (*pannaegi*). The basins, which had small lugs around their insides to seat metal plates, were also used for stewing meat. Other ceramic items in the yard included soy sauce pourers (*kanjang tanji*); similar, but larger, vinegar bottles (*ch'o pyöng*); and planters, unglazed earthenware flower pots, and drainpipes. Most of this ware was manufactured at a factory near Ch'öngju in North Ch'ungch'öng Province.

Storage Jars and Lids (1981)

<i>tae chari</i> (1 = 1 <i>tchari</i>)	<i>tae ogae</i> (5 = 1 <i>tchari</i>)
<i>settu chari</i> (3 = 2)	<i>ogae</i> (5 = 1)
<i>tchak</i> (2 = 1)	<i>ogae</i> (5 = 1)
<i>samgae tanji</i> (3 = 1)	<i>yukkae</i> (6 = 1)
<i>sagae tanji</i> (4 = 1)	<i>sipkae</i> (10 = 1)
<i>ogae tanji</i> (5 = 1)	<i>sibogae</i> (15 = 1)
<i>yukkae tanji</i> (6 = 1)	<i>isipkae</i> (20 = 1)
<i>p'algae tanji</i> (8 = 1)	<i>isipkae</i> (20 = 1)
<i>sipkae tanji</i> (10 = 1)	<i>samsipkae</i> (30 = 1)
<i>sibogae tanji</i> (15 = 1)	<i>samsipkae</i> (30 = 1)

The Kūmnam Factory's limited production, by way of contrast, consisted almost exclusively of storage jars (all, except for the largest forms, called *tanji*) and lids (*ttukkōng*), plus a few flowerpots (*hwabun*). Of the storage jars, the two largest, *tae tchari* ("big *chari*") and *settu tchari* ("3/2 *tchari*," also called *ch'ilbu*, or "70 percent"), were reserved

작업 약속 계약금
 - 한 톨 拾五兩 元正 卽
 상기 금액을 정히 영수하고
 - 한 톨 四拾兩 元正 중량기
 금액 만 영수함
 1981. 2. 2.
 아산군도근면금산리.
 김 병 3
 홍영 2380 형.

Figure 82. "Work Promise Contract" dated 2 February 1981, and certified with potter's thumbprint. (Photo by Ralph Rinzler, 1981.)

by customers for preserving soy sauce; in earlier years, when families were larger, these, like the remainder of the vessels, might have accommodated pickled *kimch'i*. Because some housewives preferred handles on their jars while others did not (reasoning that, were a handle to break, it would give the jar an “ugly” lop-sided appearance), Yi In-gyu made half of his vessels in each size with handles and half without. His lids (indicated above solely by their numerical designations) were not coiled like the jars, but were jigged on two electric wheels (*rogguro*, “shaping by cutting”) kept in a separate work building. As many as 600 were turned out daily in this fashion.

In processing his clays, Yi combined a strong, heat-resistant material from Samsŭng-myŏn, Pŏun-gun, with a smooth, fine-textured body from Nangsan-myŏn, Iksan-gun, in North Chŏlla Province. (Chu Hak-kyu nine years earlier had expended 20 truckloads of a Choch'iwŏn clay for each of six kiln firings, paying 5000 *wŏn* per load, plus 2000 *wŏn* for transportation, or \$13 and \$5). Once the clays had been cleansed in settling tanks, the combined material was shoveled into the screw mechanism of a diesel-powered extruder (*t'oraenggi*), a machine his predecessor had purchased around 1970.³⁰ Exiting the extruder as a fat coil, the material was sliced off with a wire (*tchaelchul*), then inserted in a nearby rolling mill (*rora*). Having passed through the second machine, the clay was recycled through the extruder and carried away to the workshop (Figures 83 and 84).

The potters here worked like their Kyŏnggi Province counterparts with one important difference: where the former closed off each layer of coils, staggering successive joints so that there was never an area of vertical weakness in the wall, the Ch'ungch'ŏng artisans built theirs up in spiral fashion. When a potter reached the end of his first coil, he butted a second one to it and continued building the wall.

Wheel-related tools included a pine bottom-beater and an incising awl (*pangmangi* and *mitkasae*); a pine paddle (*surae*) and a cherry wood anvil (*ch'ŏmak*, a term that would henceforth replace *t'oge*); and a metal trapezoid with its associated backup disk (*pakkat kŭn'gae* and *an kŭn'gae*). Thin and thick leather smoothing strips (both called *mulga-juk*) were used for finishing the vessel's rim, which was first evened with a horseshoe-shaped trimming tool (*mokkasae*) suspended from the ceiling. The ware was lifted from the wheel in a cloth sling. In March, when the workers manufactured 10 *mal* (180 liter) soy sauce jars, they also used the curved stick (*an kŭn'gae*) and the tin can heaters (*an pult'ong* and *twit pult'ong*, “inside fire container” and “rear fire con-



Figure 83. *Clay drying beds and equipment shed at Kūmnam Factory. (Photo by Ralph Rinzler, 1981.)*



Figure 84. *Rolling mill and clay extruder (right foreground) in equipment shed are connected to diesel engine (rear). Clays are washed before being processed through machines. (Photo by Ralph Rinzler, 1981.)*

tainer”) mentioned previously (Figure 85).³¹ Most of the wooden tools were kept in a water jar (*mul chabakchi*) to the potter’s left, while sand was contained in a bowl (*paekt’o t’ong*) to his right.

Hanging from the back of the doorframe were two other tools: a pair of marked sticks called *chōnggūmdae* (“measure”). The longer stick, measuring almost one meter long and four centimeters wide, bore painted lines and inscriptions corresponding to the heights of the factory’s various jars. The second stick, alternately called *agari chōnggūm* (“mouth measure”), was similarly marked, but the lines denoted base/mouth diameters. The potters, we were given to understand, did not remove these tools from the door during the course of their labors but checked their individual notched sticks against them as a standard.

Yi’s predecessor, Chu Hak-kyu, combined in his glaze solution 20 liters of two locally mined clays with 10 liters of pine ashes and 10 liters of water. To this basic mixture he added one kilogram of manganese oxide and 6.5 kilograms of red lead, even though a directive from the Ministry of Health had already threatened closure



Figure 85. Charcoal heaters used to stiffen sides of large storage jars. In 1972, the largest jar made at Kūmnam factory took 1 hour 20 minutes to complete. (Photo by Ralph Rinzler, 1972.)

of any factory using the latter material. Although cognizant of the health hazard, he complained that neither his kiln (which he was already obliged to repair once and sometimes twice a year) nor his clay could withstand a hotter firing. Furthermore, his customers demanded the shiny look of lead-glazed ware, even though he personally preferred the softer appearance of the unadulterated finish.

After 1977, Yi In-gyu subtracted the toxic substance from his glaze solution, while still mixing his clay binder and wood ash in the same 2 : 1 proportion as Chu. He was bitter about the lead issue, especially after learning from members of the Potters Association (of which he was a charter member) that other types of ceramics were allowed a 7.0 ppm metal content in their glazes. It was with some reluctance, therefore, that he abided by the prohibition. Where he had earlier collected his *yakt'o* from a local mountain source, he had lately begun to experiment with the Yangsan clay (from *Sosŏng-ni*, *Habuk-myŏn*, *Yangsan-gun*, in South Kyŏngsang Province) used by many of his compatriots.

Other glaze additions were manganese oxide, which the new owner obtained in bags from the Kinsei Kōgyō Co., Ltd. of Osaka, Japan, and iron filings. Yi, in fact, was the only owner to acknowledge using the latter material, which functioned primarily as a colorant: "We use manganese oxide to get the black color and iron oxide to get the red." As an additional point of clarification, he explained that the basic clay-and-ash mixture was properly called *chaenmul*, whereas the completed solution (containing the oxides and about 60 percent water) was *yuyak*. Therefore, instead of calling the stirring paddle *chaenmul pagaji*, as we had heard before, he called it *yuyak pagaji*.

Ware decorations at the Kŭmnam Factory—various combinations of rings and wavy lines (*son tti* and *yong tti*, "hand line" and "dragon line") with an orchid overlay—generally mirrored those in popular use in Kyŏnggi Province. Like Sim Sang-un at Sani village, Yi minimized the functional importance of the designs, recalling vaguely that a pot with a dragon line might be stacked in the kiln atop one with rings only. This opinion, however, was not shared by one of the former owners of the factory (who on top of his earlier troubles was now suffering from a diabetic condition that confined him with his four children to a Buddhist temple nearby).

This man, Pong Kwang-su, told us that there was, in fact, a significant correlation between the designs and the kiln setting. The orchid design, he indicated, was reserved for the heavy flat-rimmed

jars normally seated on the kiln floor—a fact he was confident every *onggi* potter would know. Second and third layers of lighter, smaller vessels would bear single dragon lines. (Nine years earlier, the same individual told Rinzler that the third layer had a double dragon line and that decorations on the smaller jars usually appeared in relief, whereas those on the floor pieces were incised.) Customers typically found the vessel with the orchid design the most appealing, although Pong preferred the middle jar, which he said was exposed to the optimum firing conditions (“the heat comes from the bottom and goes upward and comes down again”).

Pong did not specify the exact nesting order of smaller jars inside larger ones; he indicated, however, that each vessel received a predetermined amount of glaze, depending on its position in the nest. This ensured that none would be so insulated from the fire as to impede its normal point of fusing: “The important thing is the glaze; if the outer jar takes one-and-a-half measures of glaze, the second should have two measures, and the innermost jar three measures.” He reasoned that “if the first pot reaches 1200°, the next pot [because of its insulated position] will reach only 1150°, while the innermost will be cooler still.” In conclusion, Pong admitted that the stacking order he knew was simply one arrived at through the consensus of the men who loaded the kiln and that decorative embellishments might be altered if a customer so desired. He added that in earlier times, when the factory manufactured a larger inventory of forms, the system of designs was more important.

Pong Kwang-su also called our attention to the slightly swollen shape of one of the local kilns, which he likened to the profile of a storage jar. Justification for the swelling was found in the movement of heat through the structure: “The two ends are very narrow compared to the middle, the reason being that when you start the fire, you want to contain the heat in the front before it is drawn through the wide center. Toward the chimney, the narrowing once again allows [the jars at the upper end] to bake longer instead of letting the heat go out immediately.” This configuration necessitated that larger ware be positioned in the center chambers and smaller ware at the extremities.

In 1972, the first owner, Chu Hak-kyu, maintained both an old-style *taep’ogama* for firing large jars and an eight-chamber *noborigama* for smaller ware. Apparently neither proved adequate to his needs, because he demolished one the following year and razed the other



Figure 86. *Chamber kiln (norigama) at Kūmnam Factory. Each of 12 chambers (entry on opposite side) is approximately 3.7 meters deep. (Photo by Ralph Rinzler, 1981.)*



Figure 87. *Three-chimney configuration of kiln in Figure 86. Each chimney is 2.6 m high; base is 5.0 m wide. (Photo by Ralph Rinzler, 1981.)*



Figure 88. *Upper end of second noborigama at Kūnnam Factory. Chimney stacks are a distinctive feature of most chamber kilns. (Photo by Ralph Rinzler, 1981.)*

around 1977. Both were replaced with larger 12-chamber structures (Figures 86–88). In retrospect, the timing of these events could hardly have been worse. The first kiln's chambers, as it happened, proved to be insufficiently large (2.7 meters long, 3.5 meters wide, and 2.3 meters high) to accommodate a rapidly increasing workload. The second kiln, therefore, was built with chambers three meters long and five meters wide. Ironically, this event coincided with the depression of the market, with the result that it had been fired only once during the previous year.

The normal schedule for these kilns included two days for loading, seven days for firing, and a final two days for cooling. The firing period alone was subdivided into wood-burning phases (*p'iinbul*, *chungbul*, and *hambul*) of approximately two days each, followed by 20 hours of *ch'angbul*, during which supplementary oil was pumped through the chamber vents until the kiln's internal temperature approached 1200° C. Sometimes the attendants also passed wood through the openings along with the oil—a practice to which coastal potters never subscribed, according to Yi In-gyu, although they compensated for the omission by firing their kilns an eighth day.

After the ware had been removed from the kiln and surveyed for damage, the workers were paid the normal 30/10 split of the kiln profit, while an additional 10 percent was divided among five clay workers. (The first owner paid his clay workers a flat 3000 *wŏn*, or \$7.50, for each cartload of clay they processed plus another 12 thousand *wŏn*, or \$30, after the kiln had been successfully fired and evacuated of ware.) Only the potters had yearly contracts, which provided for advances of 400–500 thousand *wŏn* (\$571–\$714)—up from 50–100 thousand *wŏn* (\$125–\$250) a decade earlier—and yearly incomes around 2.5 million *wŏn* (\$3571); the remainder of the men were retained on a trust basis. Said the owner of his workers as a group: “If they stay, they stay; if they want to move, they can,” adding that many did just that (“That’s the Korean way”).

The Chŏlla Provinces

The Chŏlla provinces (*Chŏlla-pukto* and *Chŏlla-namdo*), sometimes referred to as South Korea’s “rice basket,” are to a large extent isolated

from the rest of the peninsula by mountains and ocean. It is this isolation and the area's overwhelmingly agrarian (and maritime) focus that have preserved within the local *onggi* industry a number of unique features. We, therefore, arrived at our first destination—a small factory 11 kilometers east of Chŏnju, North Chŏlla Province's market and service center—with a high degree of anticipation.

Entering Changdong village (*Changdong-ni*, *Choch'ŏn-myŏn*, *Wanju-gun*) (Figure 29, no. 7), we saw much tobacco—apparently the settlement's principal crop—drying under plastic tents. The village itself, separated from the highway by a rough gravel road, was a mixture of traditional and modern dwellings. The owner of the local ceramics factory, Yi Hae-man, lived in one of the latter—a poured concrete and formed stone structure with sliding aluminum doors in place of the old-style wooden partitions. When the expressway through Chŏnju was completed in the early 1970s, government officials advised area residents to make improvements to their homes and toward this end made available to them low interest loans. Half the building cost was covered, repayable at 2.5 percent interest over 20 years. In Yi's case, he borrowed a total of 2.5 million *wŏn*, which he matched with an equivalent sum from his savings. Some individuals from the village had refused to participate in the government's incentive program, but the owner was of the opinion that such resistance called forth official displeasure.

Born 4 June 1928, Yi Hae-man came to the site at age eight with his clay-worker father. He could tell us little of the history of his factory or others in the area; a childhood encounter with a centenarian ex-potter, however, had convinced him that the local industry might date perhaps to the eighteenth century. Only one or two of the owner's recent workers were Catholic, although three-quarters of the villagers shared this faith. A Christian himself, Yi did not place much importance on the events of the Persecution, saying that Koreans had taken flight to the mountains on many occasions, the last time during the Korean War.

Nine years earlier, there were four separate workshops (representing perhaps two different factories) at Changdong village; of these, only two remained in 1981, and much of the site had been rearranged (Figure 89). Yi Hae-man was still proprietor of the earthen-walled workshop nearest the road; except for the addition of a metal roof, it remained in much the condition it must have displayed when built a quarter of a century earlier. He employed two potters and a single

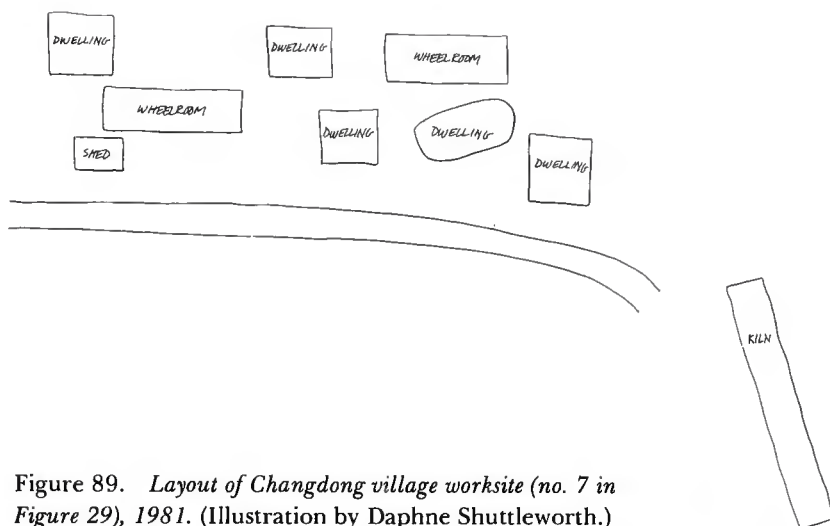


Figure 89. *Layout of Changdong village worksite (no. 7 in Figure 29), 1981. (Illustration by Daphne Shuttleworth.)*



Figure 90. *Changdong village factory owner Yi In-gyu with storage jars (in descending order of size) muji, chōjaengi, tchak tanji, koch'ujang tanji, t'onggaesok tanji, musuk tanji, samdūng tanji, sagae tanji, ogae tanji, and yukkae tanji. Note the stout appearance of these jars compared with those produced in Kyōnggi and Ch'ungch'ōng provinces. (Photo by Ralph Rinzler, 1981.)*

assistant—the same number as in 1971—who each morning during the nine-month work season began their chores around 8:00 A.M.. Occasionally, Yi and his brother, neither of whom were wheelmen, assisted the others, bringing the total number of workers at the site to five. Yi had once tried to learn the wheel techniques but admitted that he not dedicated himself to the task.

It was at this factory in 1972 that Rinzler first saw the great round vessels—typically 10 *mal* (180 liters) or larger—for which the Chōlla provinces were famous. We had hoped to see more of this ware upon our return but found only a few well-worn examples about the village. These included a food basin (*sorae*) of generous proportions, which had formerly served for community festivals and weddings but which now functioned as a glaze trough (*chaenmul sorae*), plus two somewhat smaller vessels (*nörökchi* or *ombakchi*) for preparing soup. The factory owner thought these basins might be unique, unless other examples survived in the courtyard of some wealthy farmer. Immediately adjacent to the workshop a giant rice or wine crock (*sagae chebi hang*) was half-buried in the ground. Made more than 20 years earlier by a neighborhood potter, its splintered bottom was crudely mended with cement.

Storage Jars and Lids (1981)

<i>muji</i> (1 = 1.5 <i>tchari</i>)	<i>sagae pannaegi</i> (4 = 1 <i>tchari</i>)
<i>chōjaengi</i> (1 = 1)	<i>sagae pannaegi</i> (4 = 1)
<i>tchak tanji</i> (2 = 1)	<i>sagae pannaegi</i> (small) (4 = 1)
<i>koch'ujang tanji</i> (2 = 1)	<i>sagae pannaegi</i> (small) (4 = 1)
<i>t'onggaesok tanji</i> (2 = 1)	<i>ogae pannaegi</i> (5 = 1)
<i>musuk tanji</i> (2 = 1)	<i>ogae pannaegi</i> (5 = 1)
<i>samdŭng tanji</i> (3 = 1)	<i>yukkae pŭldae</i> (6 = 1)
<i>sagae tanji</i> (4 = 1)	<i>p'algae pŭldae</i> (8 = 1)
<i>ogae tanji</i> (5 = 1)	<i>sipkae pannaegi</i> (10 = 1)
<i>yukkae tanji</i> (6 = 1)	<i>sipkae pannaegi</i> (small) (10 = 1)

Ordinary production ware at the Changdong village factory included soup bowls (*chung t'ugari*, “medium bowl”), eight of which were valued at one *tchari*, soy sauce pourers (*kanjang tanji*), and utility bowls (*ttukpaegi*), plus the normal complement of storage jars (*tanji*) and lids (*pannaegi* or *pandaegi*, and *pŭldae*) (Figure 90). Yi Hae-man indicated that the three largest food jars (*muji*, *chōjaengi*, and *tchak*

tanji) normally accommodated soy sauce; the purpose of the *koch'ujang tanji* ("red pepper paste *tanji*") was obvious from its name. The remainder could be used for any food item, depending on a customer's needs.

Our principal objective in traveling to the Chöllas was to see, besides the giant jars, a slab-building technique of unknown antiquity, which owners and potters elsewhere had repeatedly mentioned. Sim Sang-un at Sani village in Kyönggi Province, for example, had commented: "While we pile up coils little by little in this region, [potters in the Chölla provinces] need only three or four broad slabs to make a jar." As he felt the overall forming methods were the same, he declined to express a preference for either method. Other Kyönggi potters, however, were less circumspect in their opinions of the Chölla specialty. A worker in Seoul found little to recommend the work, stating flatly that it was less efficient than coiling. Another at Kap'yöng, not necessarily contradicting his associate, said that it called for extreme skill, as the slabs were easily broken. According to Yi Hae-man, the real cradle of slab work lay to the south. It was only in the 1960s that itinerant potters from around Kwangju introduced the work to the local area. His potters, he added, preferred slabs over coils because these tended to dry faster and allowed for making very large jars.

Clays for the work, formerly obtained from Hwangsang near Kimje, the owner now purchased from sources at Nangsan-myön, Iksan-gun, and Kanggong-myön, Chöng-üp. He ordered 15 truckloads yearly (about the same amount as previously, when he used two truckloads for each of eight kiln firings) at a unit cost of 50 thousand *wön* (\$71), including 15 thousand *wön* (\$21) for shipping. Because of the expenditure in time, Yi explained that he did not cleanse his clays using the *subi* operation, although he admitted to some reduction in quality by this omission. Instead, he passed them twice through a rolling mill (*rora*) driven by a motorcycle engine. The material that emerged from the mill was sliced with a wire (*ch'ölsa*) and immediately carried away to the work building where it was consolidated in mounds, using the usual hammers and mallets (*ttungme* and *kkodme*), draw knife (*kkaekki*), and wooden shovel (*karae*). The workers also used the shovel for loading clay into the rolling mill and for lifting material from the workroom floor.

The potter demonstrating the slab technique for us was named An Süng-yang. Before An began the forming process, his assistant,

seated on a low stool (*anjilgae*) and using the draw knife, peeled off a quantity of clay ribbons from a large mound. These he rolled into a ball that he flattened with his mallet. At first, he pounded the mass rather slowly with the side (*yōmme*, “side *me*”) of the tool, then more energetically with the end (*khodme*, “end *me*”), which bore a concentric ring pattern as a release. With a few more hand movements, the assistant had a vessel base made.

Setting the prepared disk aside, the same man next cut a block of clay from the mound that, using another slicing wire (*kanūn ch'ōlsa*, “thin wire”), he divided into five bars of equivalent size. Each was wedged a bit on the earthen floor, elongated with a vigorous lateral motion, then torn in two and slapped together again. Once the assistant had created a slab about 30 centimeters long, he thrust it down in an even more exaggerated lateral motion. Repeatedly turning the slab over, the worker smoothed it lengthwise with his hands, stopping from time to time to draw lines along the short dimension with the ball of his finger. At this point, an older man, obviously very experienced at the work, took the slab and began tossing it end over end as well as sideways. Like the first assistant, he stopped periodically to incise lines which he then smoothed lengthwise with both hands (Figure 91). Finally, in one continuous motion he rolled the slab—now more than a meter long—into a loose spiral and set it on edge next to the potter.

Finding his seat at the wheel (Figures 92a–p), An Sūng-yang first removed a *paduk* board (a game similar to Japanese *go*) left there by the other workers. With his left foot on the flywheel, he distributed a small amount of sieved sand on the wheelhead. Smoothing this with his hand, the potter then placed the prepared disk of clay in the center and, turning the wheel in a slow clockwise rotation, flattened it with his pine beater (*pangmangī*). To even the base further, An reversed direction momentarily and held the edge of his tool over the clay as the wheel spun rapidly underneath.

Once the base was flattened, An separated a ring of clay from its perimeter with a wooden awl (*mitkasae*) after first moistening the tool in his water jar (*mul kūrūt*). Instead of using this ring to form the bottom of the vessel wall, as coil potters in Kyōnggi and South Ch'ungch'ōng provinces had done, he discarded it. He then made a slight finger impression around the prepared disk and quickly unrolled the first slab atop the indentation. At the joint, he folded the overlapping clay back and carefully tore it away.



Figure 91. *Elongated slab developed from clay block (foreground) through continuous lateral thrusting, thinning (note striations across short dimension), and smoothing with hands. (Photo by Ralph Rinzler, 1981.)*

With the first slab in place, the potter used the side of his right forefinger to make vertical strokes at regular intervals, while supporting the wall from the inside with his left hand. This done, he flattened the rim with a pine paddle (*surae*), then used this tool and a backup anvil (*ch'ōmak*) to shape the sides in the familiar manner. For an instant, he used the point of the paddle to smooth the outer surface, as he reversed the wheel to fast counter-clockwise. Then, rolling out a small coil of clay in his hands, he added reinforcement around the inside base of the wall.

Completing these steps, An picked up a second slab and carefully unwrapped it in a clockwise direction atop the one already in place. Instead of discarding the overlap, this time he pressed it along the inside of the horizontal joint. Reversing the wheel to counter-clockwise, he traced the joint on the outside with his forefinger. Then, again reversing the wheel, he pounded his fist in an aggressive manner against the wall, still keeping his open left hand on the inside for support.

The top of the second slab was trued with a small pointed tool (*mokkasae*) held nimbly between the potter's middle and ring fingers,



Figures 92a-p. *The slab process.* (Photos by Ralph Rinzler, 1981.)

Figure 92a. *Bottom disk inscribed with wooden awl (mitkasae).*



Figure 92b. *First slab ready to be mounted on finger indentation around perimeter of bottom disk.*



Figure 92c. *Overlapping clay torn away.*



Figure 92d. *Cylinder wall thinned with knuckle and side of right forefinger.*



Figure 92e. *Top of cylinder wall flattened to seat second slab.*



Figure 92f. *Cylinder wall contoured with paddle (surae) and anvil (ch'ōmak).*



Figure 92g. *Adding second slab.*



Figure 92h. *Joint between slabs smoothed.*

then was flattened as before. Vertical strokes were made in the cylinder wall, and paddling resumed. After working his way up to the rim with his wooden tools, An trimmed the bottom slightly with his paddle point and smoothed the sides. Only at this stage did he trade his paddle and anvil for a cherry wood trapezoid (*kūn'gi*) and a shell backup (*chogaebi*). Kicking the wheel so that it spun rapidly in a counter-clockwise direction, he moved these hard-edged shaping tools up the cylinder wall, then down, then up, then down again—slowly coaxing the sides of the vessel outward into a deep curve.

Before adding the third and final slab, the potter left his work momentarily to retrieve a box seat, which afforded him additional height over his work. The new slab was somewhat smaller than the first two, measuring about 15 centimeters in breadth, and was situated so that it inclined inward toward the cylinder mouth. An smoothed the horizontal joint between the second and third slabs with the side and knuckle of his forefinger, then reinforced the inside with a small coil of clay added in clockwise fashion. As before, he made vertical impressions on the cylinder wall, paddled and shaped the whole, then reversing the wheel, evened the top edge with his awl.

With the basic form completed, the potter moistened and smoothed first the shoulder and then the rim with a leather strip



Figure 92i. *Third slab in place.*



Figure 92j. *Rim evened with small metal awl (mokkasae).*



Figure 92k. *Vessel lip formed with leather strip (mulgajuk).*



Figure 921. *Cylinder wall finished with trapezoid (kūn'gi).*



Figure 92m. Use of stick gauge (*chŏnjimdae*) ensures that mouth and bottom diameters are the same.

(*mulgajuk*). He also checked the height and mouth diameters of the vessel with short and long pine sticks (*chŏnjimdae* and *padak chŏnjimdae*) before resuming work on the wall with his two sets of tools. To extend his reach inside the cylinder, he used a long curved stick (*komgae*) in place of the shell backup. With a little more thinning and some slight shaping of the rim, most of the work was behind him.

At length, An Sŭng-yang held a moist rag against the rotating vessel creating a wavy line design with flanking rings.³² The raised rings at this factory were called *mittchak* ("bottom member"); vessels bearing this decoration were placed on the kiln floor. Single and double wavy lines, elsewhere known as *yong tti* ("dragon line"), but here simply called *uttchak* ("upper member"), went on the jars intended for the top layer. The rings were broken at intervals by clusters of slashes, added with the potter's finger or the edge of his trapezoid.³³ After making the designs and touching up the rim with his leather strip, An lowered a plastic-wrapped metal hoop (*teduri*) over the vessel's shoulder to prevent its warping; then, with an assistant, he carried it outdoors in a cloth sling (*ttŏkpatchi*) and placed it on a wooden pallet (*chwap'an*).



Figure 92n. *Encircling wavy decoration added with cloth strip wrapped over thumb.*

The factory's glaze mixture combined equivalent amounts of locally mined *yakt'o* and pine ash plus a small quantity of manganese oxide, which was purchased from a supplier in Chŏnju. For about a decade between 1965 and 1975, Yi Hae-man added lead oxide to his glaze (his 1972 formula was 10 and 12 liters of clay and ash, plus 0.05 and 0.2 liters of manganese oxide and red lead), but he discontinued its use at the urging of the Potters Association. Some years earlier local potters had drawn a wild goose design called *kirogi* on their



Figure 92o. *Base trimmed with wooden awl (mitkasae).*



Figure 92p. Pot removed from wheel in burlap sling (ttökpatchi). Plastic-covered ring (teduri) encircles vessel to prevent distortion of wall. Factory owner Yi Hae-man called the Chölla slab method noböng t'aeryöm and the coil method used elsewhere chwoigi t'aeryöm. Potters in Kyönggi Province gave taegi t'aerim and ch'etpaggu t'aerim.

vessels, but local customers did not much care for the finger decorations alleging that they collected dirt; besides, said the owner, time constraints no longer allowed for such additions. Therefore, the ware at Changdong village had a more restrained appearance than that made in the northern provinces.

Yi's cannon kiln, which he termed a *p'yōnggama* ("parallel kiln"), was nearly identical to the structure seen in 1972 at Kaya village. Like the latter, it lacked a protective roof and consequently was covered with plastic sheets during the summer monsoon season. Some years earlier there had been a much larger cannon kiln in the village, but the present one, which the owner estimated to be a century old, was all that remained. (He explained the absence of a chamber kiln in Changdong village by referring to the peculiarly stout profile of his jars; these, he remarked, stacked poorly in a segmented kiln.) Entry into the narrow kiln was through a single port a short distance up its right side. For two days, the men conveyed jars in a stooped position to the top of the vaulted interior, placing smaller ware at either end and larger pieces in the center.

The setting was followed by six days of firing, divided into the usual *p'iunbul*, *chungbul*, *k'ūnbul*, and *ch'angbul* phases. To attain a temperature just over 1100° C, Yi's men burned three truckloads of recycled scaffolding lumber, plus a quantity of fuel oil, the latter pumped into the furnace during the "middle fire" stage. (In 1972, wood-and-oil firing occurred over four days and three nights, and climaxed with five hours of wood firing alone.) The total materials outlay, including the cost of the clay used to make the ware, was 250 thousand *wŏn* (\$357). After the firing was terminated, the workers waited another three days before evacuating the structure.

The potters shared 30 percent of the proceeds for average yearly incomes of 1–2 million *wŏn* (\$1429–\$2857), which were offset against cash advances of 300–400 thousand *wŏn* (\$429–\$571). Their assistant took 10 percent which, because he worked alone, amounted to a similar total. (Comparable 1972 figures were potters' salaries and advances of 150–200 thousand and 40–50 thousand *wŏn*, or \$375–\$500 and \$100–\$125, respectively. Yi also charged his workers a monthly rental on their dwellings of 500 *wŏn*, or \$1.25.) The younger potter normally drew the higher wage, because productivity, not experience, was the owner's primary criterion in compensating his workers. Overall, Yi admitted that wages paid to his men were some-

what lower than at other factories, where advances alone might total a million *wŏn* (\$1429).

* * *

Our destination in South Chŏlla Province was an inland settlement, Wŏnbang village (*Wŏnbang-ni*, *Munch'ŏng-myŏn*, *Kurye-gun*) (Figure 29, no. 8), about two kilometers from the mountain town of Kurye. The local ceramics factory in 1972 was even smaller in scale than the one at Changdong village, comprising a single work building and, next to it, another uncovered cannon kiln (Figures 93 and 94). Proprietor Ha Yŏng-sik, age 46, rented the land and facilities from an absentee landlord. His two employees included a younger brother, a potter of some 20 years experience, and a more senior individual who had been with the craft for twice that long, moving among a dozen factories including the one at Changdong village. Both men had farmsteads in the local community and so were not dependent on their employer for lodging.

Like the artisans at the Kŭmnam Factory, the potters here formed their jars from clay slabs. In making a large wine or sauce jar—the owner indicated a meter's height with his hand—a wheelman would



Figure 93. Onggi factory at Wŏnbang village, S. Chŏlla Province. The narrow cannon kiln, measuring 27 meters in length, was fired over nine days (10 during damp weather), using pine roots for fuel. Both it and the adjacent work building had been razed by 1981. (Photo by Ralph Rinzler, 1972.)

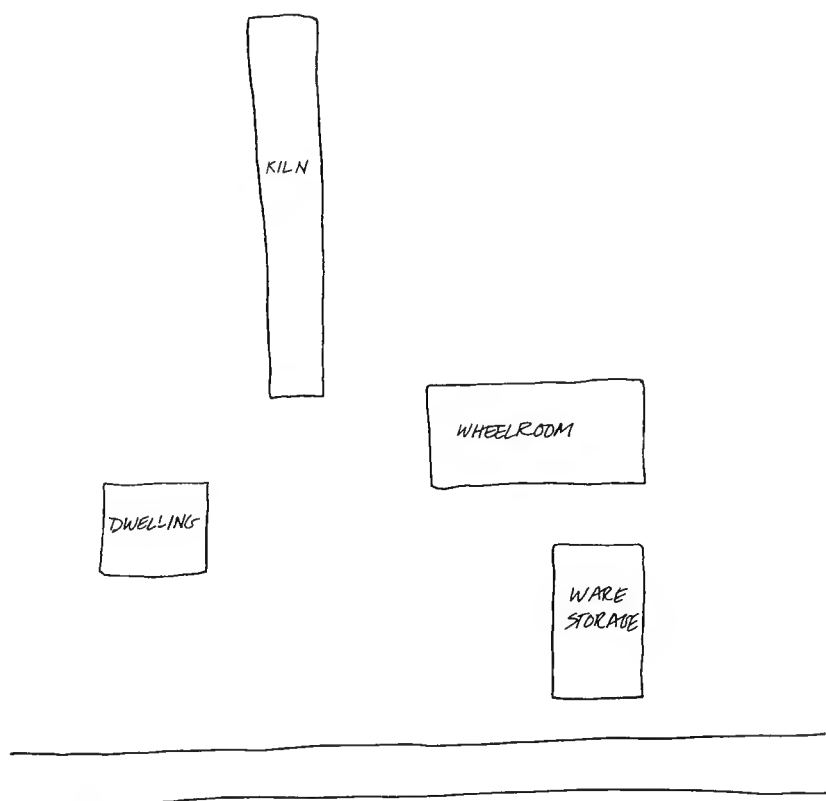


Figure 94. *Layout of Wönbang village worksite (no. 8 in Figure 29), 1972.*
(Illustration by Daphne Shuttleworth.)

create a cylinder three slabs high, then using charcoal heaters to keep the vessel wall from slumping, build on top of the slabs with seven flattened coils.³⁴ Lids were manufactured in similar fashion; these were typically very deep with inverted handles so that they might serve equally as mixing bowls. A single ball clay, obtained from a location near Kwangju and processed only minimally, was used to make the great jars, belying the claims of other factory owners that a combination of clays was necessary for such work.

After the ware was glazed in a solution of 10 liters each of clay and ash plus 0.3 and 0.6 liters of red lead and manganese oxide, small crescent decorations were added to complement the punctuated concentric rings typical of the Chölla (and, we would discover, Kyöngsang)

provinces. Ha Yŏng-sik loaded and fired his kiln approximately three times a year. During the setting, vessels placed at floor level bore two incised rings plus a single row of crescents, while those above had two or three incised rings and double crescents.

Although he was familiar with the *tchari* payment system, in 1972 Ha chose, possibly because of the small scale of the operation, to pay his men on a piece-rate basis. Thus each worker received a predetermined amount of money (600 *wŏn*, or \$1.50) for producing 15 large vessels, 25 medium jars, or 100–200 small pieces. In addition, each was entitled to draw an unsecured cash advance of 30–60 thousand *wŏn* (\$75–\$150). Altogether, a potter at Wŏnbang village had paltry yearly earnings of about 100 thousand *wŏn* (\$250) and was thus obliged to supplement his craft work with farming.

The proprietor's evaluation of the state of the *onggi* industry in 1972 was somewhat more optimistic than opinions held by his contemporaries. He admitted that many Koreans were discarding items of ceramic ware (notably soup bowls) for stainless steel versions, but felt that events were coming full circle. Soon, he predicted, even affluent Koreans would once again be using *onggi*. This was manifestly not the case, for the 30-year-old factory was gone by the time of our 1981 visit. A neighbor told us that Ha, his family dispersed and his life in some disarray, had demolished the work building and kiln around 1974, then moved to Pusan on the coast. The brother, whose wife died shortly after this event, worked as an assistant in a carpenter's shop in Kurye and spent nights in the old residence at the site.

As there was little to see at Wŏnbang village, we spent the next hour or so in Kurye at a ware vendor's shop. In the yard we found an accumulation of large sauce jars (*chang tok*) and deep basin-like lids (*hangari ttukkŏng*) with inverted handles like those seen earlier; shallower lids (*pandaegi*) with scalloped rims; leaf resist-decorated vinegar bottles (*ch'ŏ pyŏng*); and tiny, handleless prayer vessels (*chŏng chungbal*, "pure bowl"). The vendor told us that formerly he had purchased ware from Ha Yŏng-sik but since the factory closing had looked to another supplier at Kimje, 25 kilometers east of Chŏnju, when his stock needed replenishing.

Nothing had prepared us for one final discovery in Kurye. This was a theater advertisement (Figure 95) portraying a man and woman, seen from the shoulders up, making love in an enormous food jar. The legend on the poster read in part: "Highlight of Erotic Happenings in a *Hangari*." In an important sense this startling discovery



Figure 95. Movie poster at Kurye theater. Much folklore, including the “trysting place” theme, surrounds the jars. (Photo by Ralph Rinzler, 1981.)

bespoke much about the submerged folklore surrounding the ware and connected as well to earlier stories of concealment and poverty.

The Kyōngsang Provinces

Our first stop in South Kyōngsang Province (*Kyōngsang-namdo*) was an *onggi* workshop at Turyang village (*Turyang-ni*, *Sach'ŏn-ŭp*, *Sach'ŏn-*

gun) (Figure 29, no. 9) 20 kilometers southwest of Chinju, the provincial seat of government and the center of interior commerce. In 1981, this nameless century-old factory (Figure 96) was one of two within a 40 kilometer radius, the second being just three kilometers away at Chudong. The owner, Kang Kil-bu, recalled a few other factories outside this circle, but no others locally—a puzzling fact, given that South Kyōngsang Province was blessed with excellent ball clays and had the mildest climate, and therefore the longest work season, of any region in South Korea.

Born 12 February 1942, Kang came to Turyang village from Kosōng-gun, where his father, a first-generation potter, worked in one of the local factories. (Claiming no religious affiliation, he could tell us nothing of the Persecution era, nor did he think his hometown had been a Christian refuge.) Using money borrowed from a wealthy neighbor, Kang acquired his factory around 1968 from one Yi Mansun, who afterwards retired to Chinju.

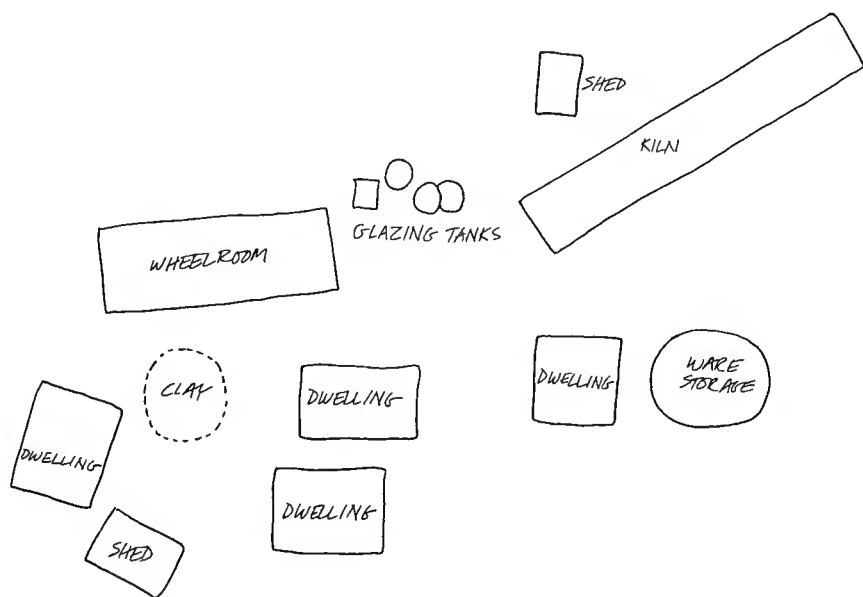


Figure 96. Layout of Turyang village worksite, S. Kyōngsang Province (no. 9 in Figure 29), 1981. (Illustration by Daphne Shuttleworth.)

In 1972, the owner supported nine workers—four potters, two assistants, and three general laborers—who also raised silk worms and tobacco plants in plots adjoining their common dwelling. The potters, who had been at the factory for periods from one-and-a-half to five years, worked 10 months out of the year and had annual incomes and cash advances in the neighborhood of 200 thousand *wŏn* and 40–50 thousand *wŏn* (\$500 and \$100–\$125), respectively; their assistants (*taenmodo*) made roughly half this amount. Although our records do not indicate the exact method of payment, fragmentary data suggest a piece-rate or quota system. Thus, each man received 100 *wŏn* (\$0.25) for producing a six-liter jar, 50 *wŏn* (\$0.13) for four- or five-liter vessels, and an unspecified smaller sum for two- or three-liter pieces.

In fact, Kang at the time may have described only the manner in which individual potters kept track of their *tchari* contributions within the work group. By 1981, he unquestionably adhered to a group distribution plan. Instead of dividing a percentage of a kiln's yield as in previous examples, however, the potters and assistants collected a fixed salary every 40 days—a period roughly corresponding to the interval between kiln firings. The wheelmen (their boss shared some of the work, so their effective number was still four) divided a combined yearly income of six million *wŏn* (\$8571) into shares according to their individual workloads.

The owner was reluctant to speak to the relative merits of fixed salaries and percentage systems, although he emphasized that virtually all of the factories in the western part of the province paid their workers in a fashion identical to his. He hastened to add that he was assuming a larger share of the risk than owners who adopted the percentage plan, because his workers were entitled to their salaries (plus housing and work-related expenses) even in the event of a kiln accident or a slowdown in sales. Implied in this arrangement, of course, was the potential that he might take a larger profit share than the traditional 60 percent, provided productivity remained high. Thus, the owner prevailed upon his men to work 12-hour days year-round, from 6:00 in the morning until 7:00 at night. Wet or cold weather provided little respite for the employees, as they were obliged to surrender their vacation days (each potter was allowed one free day a week) as compensation.

Kang realized an income of around four million *wŏn* (\$5714) from each of approximately six kiln firings (four fewer than in 1972).

Taking into consideration his expenses in wages, materials, and freighting, he came away with a gain of 500–700 thousand *wŏn* (\$714–\$1000) after each firing—or an estimated 3–4.2 million *wŏn* (\$4286–\$6000) annually.³⁵ Despite this modest figure, he had few complaints about his business. His factory was producing a high-quality product and, in an era of diminishing returns, enjoying reasonable sales, although because of rising fuel costs and inflation neither he nor his employees were profiting to the extent that they had a decade earlier. He was less sanguine, on the other hand, about the long term prospects for the industry. Because the skilled hands were dying out or retiring and because few young people were intent on replacing them, whole factories were disappearing.

Four wheels were just visible in the dimly lit asbestos-and-thatch-covered work building, along with the usual large mounds of clay. The workers prepared the clay with heavy wooden hammers (*ttungme*), a slicing wire (*chilno*), and, in place of the draw knife seen previously, a kind of L-shaped hoe (*kkaengi*). The ball clay used here in 1972 was a local Chudong substance; in 1981, Kang purchased two clays—a fine-textured one from Sach'ŏn and a more durable one from San-ch'ŏng—which he cycled in 3 : 1 proportions three times through a small rolling mill (*ttŏk rora*, literally “rice cake roller”) without benefit of advance cleansing.

Vessels were coiled (in spiral fashion), providing further confirmation that slab work was confined to the neighboring Chŏlla provinces. The owner recalled that some Chŏlla potters had attempted earlier—without notable success—to introduce the technique to local artisans; just the same, he found the work very interesting and offered the opinion that it had ancient roots in the south. As elsewhere, the potters fashioned their own tools (Figure 97), which included bottom-flatteners and incising awls (*pangmangi* and *kajang k'al*, “edge knife”), wooden paddles and anvils (*puch'i* and *ch'ŏmak*), metal shaping tools (*pakkat kŭn'gae* and *an kŭn'gae*), and cloth or leather finishing strips (*ch'ŏtpŏl chaebi* and *magŭm chaebi*, “beginning smoother” and “finishing smoother”). Other tools included C-shaped wooden lifters (*tŭlch'ae*), stick gauges (*chŏnggŭmdae*), and the curved wooden implements (called *an kŭn'gae* like the tools they replaced) and metal heaters (*twit pult'ong* and *an pult'ong*) used during the making of large jars.

Where this factory distinguished itself in 1972 was in the diversity of its product. Offerings included storage jars, utility bowls (*ttukpari*),



Figure 97. *Clay workers' and potters' tools at Turyang village factory: (top) L-shaped clay slicer (kkaengi), hammer (ttungme), (left to right) bottom flattener (pangmangi), paddle (puch'i), anvil (ch'ōmak), bottom incising awl (kajang k'al), curved stick used for making large jars (an kŭn'gae), tool for cleaning bottoms of fired ware, outside scraper (pakkat kŭn'gae), inside scraper (an kŭn'gae), leather and cloth finishing strips (ch'ōtpōl chaebi and magŭm chaebi).* (Photo by Ralph Rinzler, 1981.)

steamers (*siru*), grain washing basins (*sagu*), water bowls (*chōngsu tanji*), chamber pots (*yogang*), flower pots (*hwabun*), oil lamps (*tŭngjanp'an*), rice cake stamps (*ttōkson*) (Figures 98 and 99), and wine jars (*sul turumi*) (Figure 100). The latter form, a southern specialty, was used to transport homemade rice wine between rural farmsteads and therefore had a flat bottom to facilitate head-carriage. During the traditional wedding, a friend of the bridegroom would take such a jar plugged with rice straw to the groom's home, and the two would share its contents during a kind of post-nuptial celebration.



Figure 98. *Potter carving ceramic rice cake stamp (ttökson).* (Photo by Ralph Rinzler, 1972.)



Figure 99. *Various traditional patterns are carved on the stamps.* (Photo by Ralph Rinzler, 1972.)

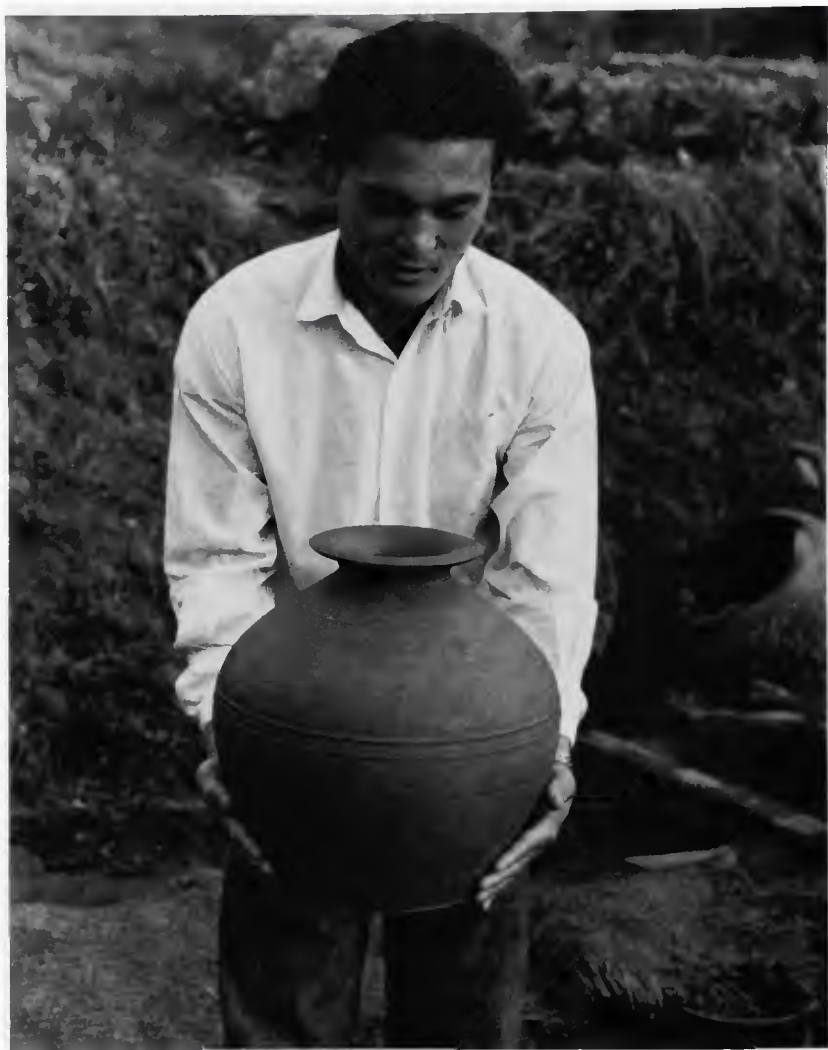


Figure 100. *Potter Kim Kyōng-hwan holding a graceful seven-liter wine jar, a southern specialty. Following graduation from Middle School, Kim undertook a three-year apprenticeship. During the succeeding decade, he worked in four different onggi factories, including the Turyang village factory and one at neighboring Chudong owned by his father. (Photo by Ralph Rinzler, 1972.)*

Storage Jars and Lids (1981)

<i>tae tchari</i>	<i>p'arae</i> or <i>sa p'yŏn</i>
<i>ch'ilbu</i>	<i>sa p'yŏn</i> or <i>o p'yŏn</i>
<i>tchak tanji</i>	<i>o p'yŏn</i> or <i>yuk p'yŏn</i>
<i>set tchebi</i>	<i>ch'il p'yŏn</i>
<i>chul sa tan</i>	<i>sip p'yŏn</i> (large)
<i>chul o tan</i>	<i>sip p'yŏn</i> (medium)
<i>al sa tan</i>	<i>sip p'yŏn</i> (small)
<i>al o tan</i>	<i>sibo p'yŏn</i>
<i>yuk tan</i>	<i>sibo p'yŏn</i>
<i>sip tan</i>	<i>isip p'yŏn</i>

Some of these forms may have been produced in 1981, although none were in view among the accumulated storage jars (*tanji*) and lids (*p'yŏn*) in the yard. In addition to those vessels listed above (Figure 101), the local potters manufactured a 15 *mal* (270 liters) brewery jar (and a corresponding lid called *chŏt tchebi*) during the winter months.



Figure 101. Turyang village factory owner Kang Kil-bu with unfired storage jars (in descending order of size): *tae tchari*, *ch'ilbu*, *tchak tanji*, *set tchebi*, *chul sa tan*, *chul o tan*, *al sa tan*, *al o tan*, *yuk tan*, and *sip tan*. These jars will shrink in size by approximately 30 percent during firing. (Photo by Ralph Rinzler, 1981.)

Tae tchari and *ch'ilbu*, served as soy sauce and rice containers, the two smallest vessels (*yuk tan* and *sip tan*) were reserved for red chili powder and other seasonings, and the rest were *kimch'i* jars. Kang Kil-bu emphasized that his men always manufactured a variety of different sizes so that the jars could be nested and stacked in the kiln; in other words, they never made big jars or small jars exclusively.

The principal embellishment on ware at Turyang village was the familiar wavy dragon line (*yong kŭrim*, "dragon picture"). Kang, like the other owners in 1981, minimized the importance of decorative devices in preparing the kiln setting: "If it is the same size pot, they just put one below and one above. The decoration is just that—the lines look more appealing. An individual [potter] simply wants to test his skill or have fun."³⁶

Once formed, the ware was glazed in a solution of two parts *yakt'o* to one part ash, plus a smaller amount of manganese oxide. (Comparable proportions for 1972 were five and two liters of clay and ash plus a combined 0.02 liters of red lead and manganese oxide.) The clay was obtained from Yangsan, the manganese oxide from a Japanese supplier. Although familiar with the lead issue, Kang was not a member of the Potters' Association and seemed to have resolved the problem in his own fashion. With the exception of the glaze-mixing paddle (called *hop'agaengi*), names for the various glazing implements here were the same as those given previously—*chaenmul ch'e* for the strainer and *pagaji* for the dipper.

Kilns in the Kyŏngsang provinces were called *kul* ("cave" or "tunnel"), rather than *kama*. Thus local potters referred to the traditional cannon kiln as a *taep'ogul* and the chamber kiln which superseded it, *kaeryanggul* ("improved kiln"). Kang professed little knowledge of the history of the chamber kiln, though he agreed with other owners that its point of origin was probably near the port city of Ulsan. He began using a *kaeryanggul* around 1960 in part because locals had been forbidden by law from clearing timber in the surrounding countryside. By virtue of the fact that the chamber kiln was suited to burning waste oil as well as scrap lumber, a potentially damaging situation was at least temporarily averted.

The *kaeryanggul* at Turyang village in 1972 was an especially handsome one, with 11 dome-like chambers and insulating thatch covering part of its arch and upper end (Figures 102 and 103). We were mildly disappointed, therefore, to find a more businesslike-



Figure 102. Chamber kiln (called *kaeryanggul* in the *Kyōngsang* provinces) at *Turyang* village factory. The workers had just opened the chamber doors after seven or eight days of firing (note insulating thatch piled over structure's upper end) and were carrying 4500–5000 jars down a steep walkway adjacent to the kiln. Broken vessels and sherds were used to line drying beds at a local salt-processing plant. (Photo by Ralph Rinzler, 1972.)

looking structure on the grounds nine years later, this one reduced to nine chambers and bearing a pronounced chimney. The associated firing cycle for the latter kiln included two days for loading, nine days for firing, and six days for cooling (five in winter). The lengthy nine-day firing period—necessary because of peculiarities in the clay body—was divided into *p'iunbul*, *chungbul*, and *ch'angbul* phases. During *p'iunbul*, two truckloads of recycled construction lumber were exhausted at a total cost of 300 thousand *wōn* (\$429). During the final phases, fuel oil was first poured into the firemouth, then sprayed through the chamber vents, until the internal temperature of the structure peaked at 1200° C. After a single day of unloading, the saleable pieces were trucked off to vendors in Chinju, Sanch'ōng, and Sach'ōn; the broken remnants were also gathered up and taken to a salt-processing plant in the latter location, where they were used to line drying beds.



Figure 103. *Lower end of kiln in Figure 102.* (Photo by Ralph Rinzler, 1972.)

* * *

Our second destination in South Kyōngsang Province, a location slightly inland from the coast between the giant industrial ports of Ulsan and Pusan, had one of the largest concentrations of ceramics manufacturers in all of South Korea.³⁷ In 1972, just over half of the 20-odd workshops in Mangyang village (*Mangyang-ni*, *Onyang-myōn*, *Ulchu-gun*) (Figure 29, no. 10) produced storage vessels, while the remainder made roof tiles. A sizable number of the village's 1000 residents, including most of the potters, were Christians. As there was no church in the local area, the potters and their families attended services eight kilometers away at Ulsan.

Several of the locals believed the area to have been a center of *onggi* production for a century or longer, owing to its excellent ball clays. However, the village's landlord, a prosperous businessman who also ran a custom tailoring shop and Japanese language school in Ulsan, disagreed. He said that some 30 years before there had been but one factory in the area and that the renaissance had taken place only since 1959, the year his father became the village's principal landholder. Enhancing this renewal was Mangyang village's proximity to major markets and, by extension, to shippers and merchandisers.

Rinzler's informant in Mangyang village, Yang Ch'ae-hak, age 41, was born up the coast at Wōlsōng-gun in North Kyōngsang Province. A farmer previously, Yang had turned to manufacturing *onggi* only in the late 1960s. He invested his personal savings plus an amount of borrowed cash totalling one million *wōn* (\$2500) to purchase the work buildings and kiln. His yearly land rental came to an additional 50 thousand *wōn* (\$125).

The three potters and two assistants at the factory in 1972—all natives of North Kyōngsang Province—shared a single dwelling. Payment to these individuals was by the piece: each three-man work team (two potters and an assistant) shared 70 *wōn* (\$0.18) for manufacturing one large vessel, three medium-size vessels, or five and 10 of the smaller sizes. In addition, the wheelmen drew cash advances of 50–60 thousand *wōn* (\$125–\$150), acknowledged by written receipt. This was their only work; the owner paid two other workers a flat 30 thousand *wōn* (\$75), plus meals, to fire his kiln. According to Yang, all of the surrounding factories held to this payment system, although one entrepreneur had experimented with a percentage plan until economic reverses persuaded him to follow the example of his neighbors. Work at this factory occupied 12 months out of the year, with

days off during cold or rainy weather. Employees came and went with some frequency, but because they usually repaired to nearby fields when not working, could be easily located.

Yang's ball clays—approximately 30 truckloads yearly—came from Ulsan and from Yŏngch'ŏn in North Kyōngsang Province at a cost of nine thousand *wŏn* (\$23) per truckload, including freighting. Originally, owners in this location fired their kilns for a total of five days but later concluded that the ware could more profitably stand a longer period in the kiln—up to twice as long as previously. Therefore Yang fired his kiln for three days with wood, then five with oil. The latter fuel—20 drums altogether—was first poured on bricks at the firemouth, then at the climax stage was pumped through the chamber vents. During the latter 15 or 16 hours these inlets were checked constantly to ensure that the fire was evenly distributed, and the oil flow was adjusted accordingly.

Each of 10 yearly kilnloads of successfully fired ware yielded the owner an income of about 700 thousand *wŏn* (\$1750); mishaps, on the other hand, reduced this figure to as little as 300 thousand *wŏn* (\$750). Deducting the 60 and 10 thousand *wŏn* (\$150 and \$25) spent for fuel oil and firewood, the owner was left with an average net income of around 630 thousand *wŏn* (\$1575). Most of the jars sold, not surprisingly, in autumn, when customers set aside their winter stores of food. Prices charged were fairly uniform among the different factories at Mangyang village, "price wars" apparently being unknown. The only note of alarm sounded at the time came from the owner of a neighboring factory, Kim Kyōng-jo. This man commented that plastics were beginning to replace the smaller forms and predicted gloomily that it was only a matter of time before ceramic foodware would be obsolete.

* * *

Approximately the same number of factories remained at Mangyang village in 1981 as in 1972—16 in the village proper, with perhaps three more in the surrounding countryside (Figures 104 and 105). The roof tile industry had ceased sometime between our first and second visits doubtless because of the introduction of a molded cement product. As a result, virtually everyone manufactured storage jars along with a few miscellaneous smaller pieces including soup bowls (*kuk ch'ubari*) and flower pots (*hwabun*). Nine years earlier, a flood had rendered the factory of Yang Ch'ae-hak (one of five factories in the same compound) very nearly inaccessible; indeed, to reach it Rinzler



Figure 105. *Damaged storage jars used as wall fill at Mangyang village.* (Photo by Ralph Rinzler, 1981.)

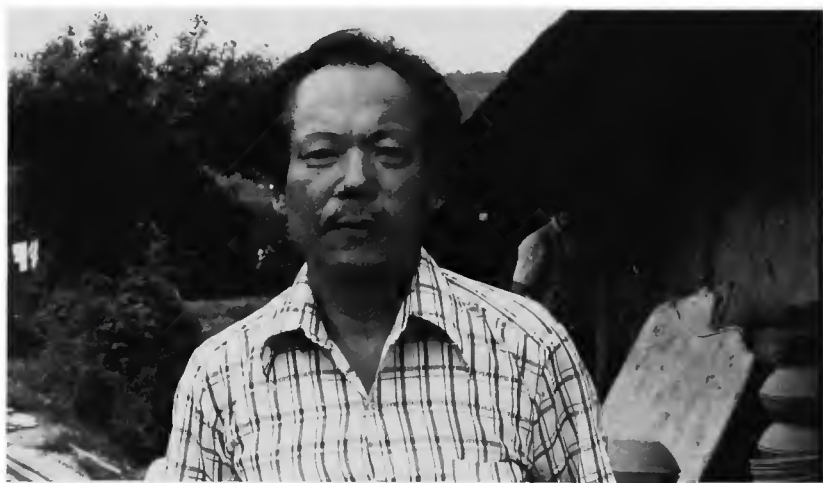


Figure 106. *Sodul Factory owner Kim Kyōng-jo. After purchasing his factory in 1967, Kim, like the other artisan-owners, ceased making ware himself.* (Photo by Ralph Rinzler, 1981.)

and company had had to ford a wide, shallow river on foot. This time no such impediment presented itself and we drove right up to the site. As it happened, however, Yang was nowhere to be found. The neighbor, Kim Kyōng-jo (Figure 106), explained that our earlier informant had sold his facility to one Pak Su-hong and moved away. Although events had favored the former owner, he had found the business a trifle too adventuresome for his nature.

For his part, Kim employed three potters and one assistant at his Sōdŭl Factory—one potter and one assistant fewer than what he considered an ideal complement. Other factories in the village had four, six, or as many as 10 workers. Like Kang Kil-bu at Turyang village, Kim paid his work team a fixed amount of money at month's end, whether a kiln was fired or not. A man's individual share of the proceeds was thereafter determined by his contribution in labor. As a result, the most industrious of the three potters took home a monthly 300 thousand *wŏn* (\$429), while the others were apportioned lesser sums, usually in the 150–200 thousand *wŏn* (\$214–\$286) range. Assistants normally received three-quarters of the average potter's pay, based on the formula that two as a pair would be paid exactly half the total wages assigned to the three potters. Because Kim had only one coil maker, however, the latter was entitled to the double wage and, indeed, made half again as much money as the wheelmen he serviced—a most unusual circumstance.

Advance money for the better potters totalled one million *wŏn* (\$1429), while their less-skilled counterparts drew half this amount. New workers sometimes deserted the factory after a few months because of what they perceived to be low wages; the majority, however, stayed for two or three years, and one man had been on the premises through the decade. Under the terms of their contracts, all of the men received free housing. In return, they agreed to labor year-round, subtracting only a few days during inclement weather. They worked six days a week (never on Sunday, even during the peak season) from 5:30 in the morning until 6:00 or 7:00 at night.

Storage Jars and Lids (1981)

<i>tae tchari</i>	<i>sa p'yŏn</i>
<i>han mal</i>	<i>yuk p'yŏn</i> (large)
<i>tat toe</i>	<i>yuk p'yŏn</i> (large)
<i>samgae tanji</i>	<i>yuk p'yŏn</i> (small)
<i>sagae tanji</i>	<i>sip p'yŏn</i>

<i>ogae tanji</i>	<i>sip p'yŏn</i>
<i>yukkae tanji</i>	<i>sibo p'yŏn</i>
<i>sipkae tanji</i>	<i>isip p'yŏn</i>
<i>sibogae tanji</i>	<i>isibo p'yŏn</i>

Han mal, the second largest of Kim's storage jars, glosses "one *mal*," but its capacity, according to the owner, was actually three times greater (its value was also recorded as 1.5 *tchari*). The name given the third jar, *tat toe* ("five *toe*"), is a measurement equivalent to one-half *mal*.³⁸ Kim did not specify a use for his jars, saying only that they accommodated, variously, soy sauce, water, rice, or *kimch'i*. Designs on the ware were the same as those at the Turyang village factory: a wavy dragon line (*yong tti*) flanked by concentric rings (*tti* or *mokchul tti*, "neckline"). In stacking the kiln, vessels with the dragon line were placed on the chamber floor and were therefore designated *mit chari* ("bottom position"); a top layer without this decoration or with handles was called *ut tanji* ("top *tanji*").

The continuous spiral method of coiling the ware was used here as elsewhere in the province along with the usual assortment of tools: a pine bottom-beater and an incising awl (*pangmangi* and *kasim k'al*, "cut knife"); a paddle and an anvil (*puch'ae* and *tŏlmot*); a stainless steel trapezoid and a backup disk (*pakkat kŭn'gae* and *an kŭn'gae*); and leather finishing strips (*mulgajuk* or *mulchipkae*, "water picker"). Other wheel-related tools included a curved stick (*an kŭn'gae*), which substituted for the smaller instrument of the same name, a pine rectangle (called *puch'ae* like the paddle) used with one of the leather smoothing strips to shape the walls of very small ware, a stick gauge (*chŏnggŭmdae*), and a sling lifter (*tŭlppo*).

Kim maintained that the local Ulsan clay was of such superior quality that Japanese entrepreneurs had many times inquired about importing it to their country. Unfortunately, most of the beds had been exhausted by 1981, so the owner, like his neighbors, looked to other sources—notably Pŏnp'o near Ch'angwŏn, and Yŏngch'ŏn and Angang in neighboring North Kyŏngsang Province—for his own clays. These were still of sufficiently high quality to preclude advance cleansing. Instead, the clay workers watered the material as it came off the truck, then stamped on it by foot to break up the clods. Following this, the three different materials were processed twice in equal amounts through a gasoline-powered rolling mill (*rora*), stamped on again, then passed through an adjoining extruder (*t'oranggi*). A

few of the old mounding tools—the wooden hammers (*ttungme*) and an L-shaped hoe (*kkwaengi*)—were about the premises, but had an unused look about them.

In 1972, Kim's glaze solution combined 24 liters of a local *yakt'o* with nine liters of pine ash, plus 0.05 liters of manganese oxide and 0.10 liters of red lead. Concern over the use of lead had already surfaced at the time, but Kim like the other owners charged the issue to the contrivings of the plastics manufacturers. Just the same, he respected the prohibition and began ordering a synthetic substitute called "*hwuraet'o*" from a distributor in Seoul. Because his Yangsan *yakt'o* was inferior to that used previously, Kim was obliged to increase the binder proportion upward. The *chaenmul* solution was mixed with a paddle (*tanggurae*) and scoop (*chaenmul pagaji*), then strained into a second tank.

All of the kilns at Mangyang village in 1981 were 9- or 10-chamber structures. Kim dismissed the suggestion that the chamber kiln (*kaeryanggul* or, more simply, *onggigul*) had other than a Korean origin, noting that similar kilns had long been used to fire porcelain chamber pots (*yogang*). (This recalls the comment by Sim Sang-un at Sani village that a smaller version of the chamber kiln had long been used by porcelain potters.) The principal advantage of the *kaeryanggul* was safety: a firing error in a cannon kiln would endanger its entire contents; in the new kilns, such failures were confined usually to a single compartment.

The owner's kiln (Figures 107 and 108) was an enlarged version of the one seen in 1972. Each of its 10 chambers was about 3.3 meters long and an equivalent height, and its upper end terminated in a distinct chimney. After two or two-and-a-half days of loading, firing proceeded through the normal *p'iinbul*, *chungbul*, and *hambul* phases using wood as the principal fuel. During *ch'angbul*, the attendants passed splints through the chamber holes, then pumped oil in with a hand pump. Altogether, the procedure occupied 12 days, four more than in 1972 when a substantially greater volume of oil was used. After firing ceased, the kiln was sealed and left to cool for an additional three days.

Each firing expended five or six truckloads of construction lumber and 16 drums of oil at unit costs of 140–150 thousand *wŏn* and 39 thousand *wŏn* (\$200–\$214 and \$56), respectively, making a total expense of about 1.2 million *wŏn* (\$1714). This Kim contrasted with an average kiln yield of 70 percent (nine truckloads) of undamaged



Figure 107. *Upper end of steeply sloping chamber kiln (kaeryanggul) at Mangyang village, showing distinctive chimney. Entry to chambers along right side. (Photo by Ralph Rinzler, 1981.)*



Figure 108. *Village women carrying ware to upper chambers of kiln in Figure 107. Women and children transported the ware to the kiln while the skilled potters attended to the actual stacking and firing. (Photo by Ralph Rinzler, 1981.)*

were totalling in value almost five million *wŏn* (\$7143). His best yield ever was 90 percent (10 truckloads), with a value of 5.5 million *wŏn* (\$7857), while his worst was 45–50 percent, totalling 2.75 million *wŏn* (\$3929).

The thoughtful, soft-spoken Kim Kyŏng-jo (who was born 25 February 1919 at Yŏngch'ŏn in North Kyŏngsang Province) recounted to us how his career as a potter began when he was 18, the same year that he also embraced Catholicism. Affirming in his own mind the close relationship between pottery making and Christianity, he alluded to the Biblical account of Judas the Apostle: "In the time of Jesus Christ, Judas gave 30 silver coins to purchase a piece of land where *onggi* clay was mined."³⁹ Our informant paused for a moment, then added: "During the Persecution by the Taewŏn'gun, many people believed their salvation lay in learning to make pottery. So they went to the mountains to learn. I do not believe that my ancestors made pottery at this time. But I am a Catholic and I make pots." It is interesting that Kim found transcendent meaning in the Judas story, especially as it was this apostle who betrayed Jesus to the Romans and whose blood money went toward the purchase of the "potters' field." As a result, one can read dark implications into the story: namely, that Judas's treacherous act might have forever condemned potters to their low station in society. We did not, however, have the opportunity to pursue this matter with Kim.

* * *

The final leg of our journey took us to Kyŏngju in mountainous North Kyŏngsang Province. There were five *onggi* factories in the area of the historic city in 1972. Two of these shared a spot near Pulguk-sa, the famed Buddhist temple complex; the remaining three were situated about four kilometers northeast of Kyŏngju at Kŭmjang village (*Kŭmjang-ni*, *Hyŏn'gong-myŏn*, *Wŏlsŏng-gun*) (Figure 29, no. 11). Rinzler's original informant in the latter location was an owner named Chang Kyŏng-dae. Indeed, a disproportionately large number of Kŭmjang village's inhabitants—11 households—shared the Chang surname, indicating perhaps the presence of a lineage segment. The fact that most of the villagers, including Chang, were Buddhist (two of his four potters, on the other hand, were Catholics) lent credence to this supposition, inasmuch as the residents would not have been dispersed during the Persecution.

Born the twenty-ninth day of the second lunar month in 1916, Chang spent his formative years at Yongil, a settlement about 30

kilometers away. At the age of 11, he and two brothers moved with their father, Chang Pong-jo, the son of a potter's assistant and an itinerant potter himself, to Kūmjang village. Two kilns and four earthen cottages already stood at the site when the family arrived; these, however, did not survive over the long run, and Chang credited his father with any subsequent growth in the area.

As a young man of 22—five years after he had begun making pottery—Chang left behind his wife of one year and, like many other Koreans of the period, sought work in Japan. During the first two years of World War II, he labored in a ceramics plant at Hiroshima, then transferred his skills to factories at Fukuoka, Kokura, and Moji. Reflecting on this period of his life, Chang told his American visitors that he felt he needed to develop new skills if his business was to succeed.⁴⁰ Justly proud of the fact that the Japanese potters of antiquity had learned most of their advanced skills from Koreans, he was also aware that, during the present century, they had surpassed his countrymen in many technical matters.

In retrospect, Chang's experience in Japan was a disappointing one. He found the potters there to be secretive about their processes and, worse yet, poorly disposed toward immigrants. He spent one final year at a factory specializing in the production of *sake* bottles—a form he reproduced with poor results upon his return to the peninsula in 1945. Three years after the Liberation, Chang was invited back to Kyūshū by one of the Japanese owners but declined the offer. Instead he invested his time making improvements to his father's factory.

By 1972, Chang Kyōng-dae was no longer making pottery, having completed his last work more than a decade earlier at age 42. To mark the event, he fashioned two enormous rice jars, one of which he later negotiated to the front of his dwelling (Figure 109). Producing such large ware was difficult, so he made his "farewell jars" in a size that people would remember. Interviewing prospective employees, he liked to draw their attention to the vessels to indicate both his high standards and the measure of his ability.

It was clear Chang considered himself rather more than a mere artisan and, as such, was unsparing in his criticism of associates. On one occasion, during a period of illness, he was obliged to take on "experts," so-called, to supervise the firing of his kiln. Even with all of their experience, the owner complained, the men failed in their task. Similarly, he was skeptical of visitors solicitous of his advice. In 1971,



Figure 109. Factory owner Chang Kyōng-dae with “farewell jar.” This vessel is now in the permanent collections of the National Museum of Natural History, Smithsonian Institution, Anthropology cat. no. 423163. (Photo by Ralph Rinzler, 1972.)

42 Japanese ceramics students engaged him in a two-hour conversation. Unimpressed by their queries, he nevertheless listened politely to what they had to offer. “Man will go sooner or later,” he liked to say, “and what good is it if he carries his secrets with him?” He only regretted that student visitors were rarely serious enough to be practical about the work. Said he: “It is one thing to be academic, quite another to be practical.” Yet Chang felt it was his “destiny” to teach, “even if students do not learn well.” (Such instruction did not extend to the majority of apprentices, whom Chang characterized as untrustworthy and disloyal; usually he sought to hire only veteran workers.) For these and other reasons, the owner was reluctant to encourage his own sons to enter the trade. In his view, the *onggi* industry had fallen on hard times. Why then should he insist that his children succeed him in such a discouraging and poorly regarded business?

* * *

In seeking after Chang Kyōng-dae in 1981, we first located his wife, Chōng Kūm-yōn (Figure 110), who sold *onggi* in the Kyōngju



Figure 110. *Chông Kũm-yŏn, Chang's wife, at Kyŏngju market. (Photo by Ralph Rinzler, 1981.)*

market. Sadly, we learned that Chang had passed away the previous spring, having suffered for six years with paralyzing rheumatism. Reflecting on happier times, she told us how her husband had once been counted among the best potters in the area, a reputation gained through competitions sponsored by the *kun* authorities. However, some time after our first visit, he had lost a large quantity of ware in a kiln accident and, as a consequence, had suffered a prolonged depression. Chang's emotional condition was complicated by his physical disabilities, and soon after, in February of 1977, he transferred his business to a neighbor and retired. As was his wish, none of the three sons, ages 25, 24, and 21, succeeded their father as potters. Instead, the oldest, we were told, was an office worker, the second was in the army, and the last worked in a tailoring shop in Kyŏngju.

Kũmjang village (Figure 111) was just beginning to stir when we arrived at the site the next morning. A call to work over the settlement's public address system brought a cadre of young men, sharpened farm tools in their hands, streaming out of the houses as they made their way to the surrounding fields. The road adjoining the village was thereafter a conduit for all manner of human traffic: a

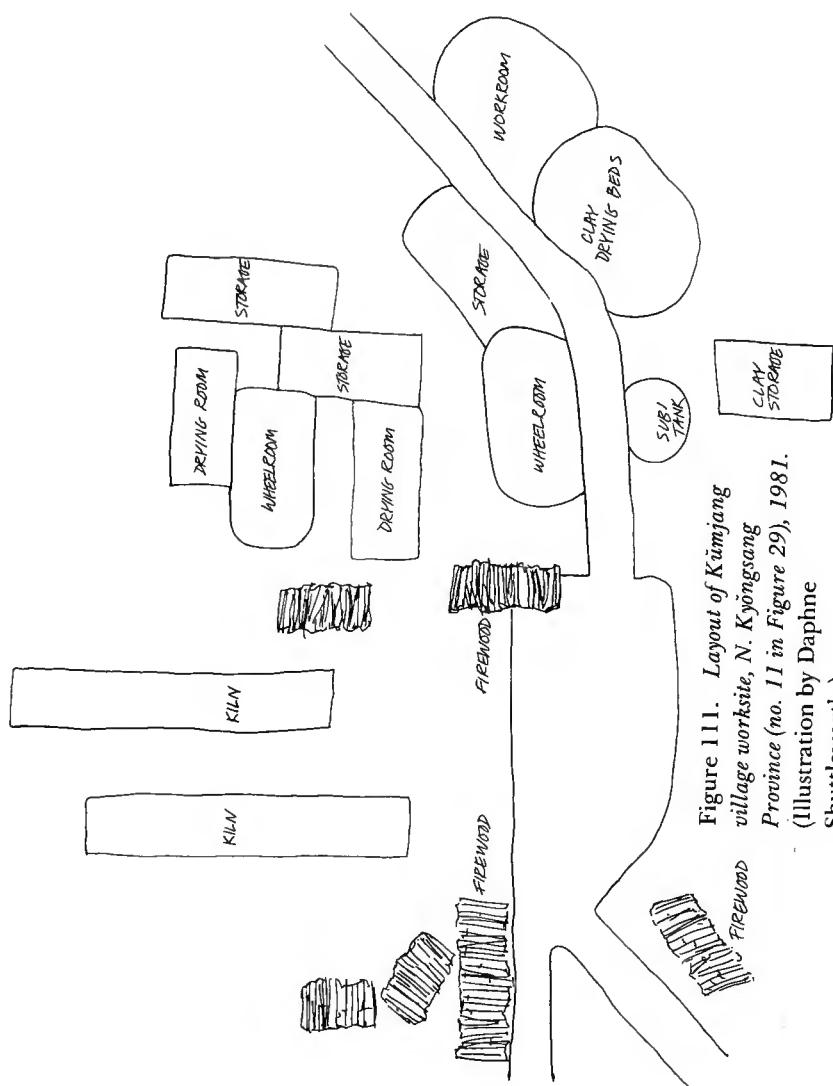


Figure 111. Layout of Kūmjang
village worksite, N. Kyongsang
Province (no. 11 in Figure 29), 1981.
(Illustration by Daphne
Shuttleworth.)

man pushing a bicycle piled high with goods (including a large storage jar tied to the rear fender); two young soldiers, also with bicycles, singing merrily as they sped past; five men in a wagon pulled by a small tractor; several hikers; and an elderly couple who tied their cow to a tree as they stopped off at the winehouse for a soft drink. Around noon, this flow of traffic was interrupted by a slow funeral procession, led by an individual carrying a red banner. The flower-decked bier was carried aloft by several pallbearers and was trailed by additional white-cloaked mourners with yellow hoods. In a short while, this group disappeared around the bend in the road toward the village cemetery, and normal traffic resumed.

Chang's successor, Söl Kwan-ju, was born 6 March 1938 in Japan, the son of a wartime conscript. Upon returning to the peninsula following the war, he settled with his family at Angang in North Kyöngsang Province; later, after the father's death, he removed to his mother's hometown of Ch'önggha about 25 kilometers north of P'o-hang. Having no forebears in the ceramics industry, Söl, in fact, did not take up the craft until after his marriage at 27. The learning process was very difficult, he admitted, yet it was also challenging and interesting. Counting himself as a fast learner ("In the old days it took about ten years to become a competent potter, but in recent years one can become skillful in five or six"), he first mastered the making of round bottom disks and coils, then in a short while started working on the wheel. Following his stay in Ch'önggha, Söl moved his family to Pulguk-sa, where for three years he rented one of the existing workshops. It was here that he met Chang Kyöng-dae.

Chang acquainted himself with his potter neighbor in the normal course of business and, at length, sought to persuade the younger man that he should purchase the factory at Kūmjang village. He flattered Söl, telling him that his skills would restore the operation to its original prominence. Three times he came with his offer, and at last Söl acceded. Unfortunately, the owners of the two other factories in the village, both of whom were kin to Chang Kyöng-dae, were not immediately disposed toward the outsider. Equally vexing, neither Söl nor his predecessor had clear title to the worksite, which was held by a third party in the village. After a few years, however, the neighbors warmed to him, and the land complication was resolved when the original landlord moved away.

Söl Kwan-ju in 1981 employed the same number of skilled workers as Chang Kyöng-dae: four potters and two assistants. The comple-

ment of part-time laborers who prepared the clay and firewood and loaded the trucks, on the other hand, had been reduced from six to two. Some of these workers came with Söl when he moved from Pulguk-sa, while the remainder were locals who had been at the factory between two and four years.

The payment system at this factory was possibly like that at factories in South Kyöngsang Province, although the data once again are inconsistent. In Chang's day, a team of two potters and an assistant was paid on a piece rate basis, dividing 90 *wön* (\$0.23) for each *tchari* earned. (The clay workers, for their part, drew a highway worker's or field hand's wage: 500 *wön* per day, plus meals.) The men's hours were their own concern, though they typically worked from early or mid-morning until late afternoon. Chang felt that his potters were allowed some freedom in this regard, yet made a reasonable annual income of about 250–300 thousand *wön* (\$625–\$750). He admitted to some difficulty, however, motivating the workers to keep their outputs high.

Söl's workers nine years later also kept track of their individual production in *tchari*, but, like the potters and assistants further south, used this accounting to determine their share of a fixed salary, paid out after each of 10–12 firings during the year. The wheelmen as a group were paid twice the sum of money as their assistants; because there were four of the former and two of the latter, however, this worked out to an equivalent wage. Average monthly salaries in 1981 were 240–250 thousand *wön* (\$343–\$357), which, deducting the one winter month when the workers were not active, spelled yearly earnings of around 2.6–2.7 million *wön* (\$3714–\$3857). Potters' advances totalled 500–600 thousand *wön* (\$714–\$857). As for the housing allotment: if a man lacked housing, the owner provided it; even if a potter owned his own dwelling, Söl would usually underwrite house repairs.

The ware made in Kūmjang village in 1972 included large wine and soy sauce containers (*sul tok* and *kanjang tok*); cylindrical crocks (*tongi*) for salted shrimp, minnows, and sprouting beans; and rice steamers (*ttök siru*). About half of Chang's storage jars were modeled after his father's forms, and half were "modern" versions made to a higher, trimmer profile. Many customers, judging the former jars unstylish and "old-fashioned," were of the conviction that a narrower storage jar produced better *kimch'i* than a full, round one, and that soy sauce crocks with wide mouths, which allowed more sunlight to

enter, produced better-tasting sauce. Responding to this matter of customer preference, Chang said simply that “some people dress plain and some dress very fancy.” Because the factory manufactured wine pots, a tax officer visited the site every so often to inspect the premises and to measure the capacity of the vessels, ascertaining that a 10-liter jar actually held that amount.

Not surprisingly, the inventory of manufactured forms nine years later had been reduced both in compass and in size (Figure 112). Large and unusual vessels could still be seen in courtyards around the village, preserved with wire bands and cement, and we endeavored later to purchase examples for the Smithsonian Institution’s collections. Söl’s workers, however, made little save the regulation storage ware and soup bowls (*t’ubari* or *tuksiri*). Of the various jars (*tanji*) and lids (*ttukkōng*) indicated below, the two largest were reserved for soy sauce, while customer preference dictated the function of the rest.



Figure 112. *Kūmjang* village factory owner Söl Kwan-ju with storage jars (in descending order of size): tae tchari, ch'ilbu tanji, tchak tanji, sam tanji, sa tanji, o tanji, yuk tanji, yōl tanji, and sibo tanji, plus soup bowl (ttuksiri). (Photo by Ralph Rinzler, 1981.)

Storage Jars and Lids (1981)

<i>tae tchari</i>	<i>tchak ttukkōng, sam ttukkōng, or sa ttukkōng</i>
<i>ch'ilbu tanji</i>	<i>sam ttukkōng or sa ttukkōng</i>
<i>tchak tanji</i>	<i>yuk ttukkōng</i>
<i>sam tanji</i>	<i>p'al ttukkōng</i>
<i>sa tanji</i>	<i>p'al ttukkōng</i>
<i>o tanji</i>	<i>yōl ttukkōng</i>
<i>yuk tanji</i>	<i>sibo ttukkōng</i>
<i>yōl tanji</i>	<i>isip ttukkōng</i>
<i>sibo tanji</i>	<i>isip ttukkōng</i>

In the workshop, the wheels were all mounted on fire-hardened datewood axles. These were modified to accept collar bearings, an improvement that seemed nearly universal and which Söl said had been known to *onggi* potters for nearly 20 years. Wooden tools were divided between those made from relatively soft pine and those fashioned from persimmon, which could be ground to a finer edge. Pine tools included a bottom-beater (*pangmangi*), an incising awl (*kasim k'al*), a paddle (*puch'ae*), and an anvil (*ch'ōmak*), whereas persimmon tools included a trapezoid (*pakkat kŭn'gae*) and an oval scraper (*an kŭn'gae*). In addition, Söl's potters used three different leather or felt smoothing strips (all called *mulgajuk*), the curved wooden shaper (*kin an kŭn'gae*) and charcoal heaters (*pul p'idegi*, "fire setter") associated with the making of large jars, and base and height gauges (*chōnggŭmdae* and *kin chōnggŭmdae*). Various lifters included a flexible C-shaped wooden device (*tŭlch'ae*), a cloth sling (*tŭlppo*), and a pair of bamboo splints (*tŭlch'ae*). The potter's sand and water bowls were called *mitchae* and *mul pojaegi* and his plank seat, *ŭija* ("chair").

In 1972 Chang Kyōng-dae obtained half of his ball clays locally and the rest from Ulsan and Yōngch'ōn. Materials preparation was simpler than at other places, he asserted, owing to his skill in selecting sandless clays, which required minimal processing. Whenever he heard of a clay deposit in an area, he would personally inspect the site, then collect a sample for testing. For each truckload of imported material, he paid 14 thousand *wōn* (\$35), including six thousand *wōn* (\$15) for shipping. In all, he used 40 truckloads of clay each year (for approximately 10 kilnloads of ware), which he cycled through a hand-operated rolling mill without advance cleansing. Afterwards, the clay was mounded using a wooden mallet (*udme*), an L-shaped hoe (*kkaengi*), and a cutting wire (*hŭkchul*, "soil string"). In 1981, Söl Kwan-ju

obtained 40 percent of his raw clay from Yöngch'ön and Ulsan and the rest from Angang, cycling these materials three times through a roller (*rora*) powered by an electric generator and once through an extruder (*t'oranggi*).

As the ware came off the wheel, it was glazed in a mixture of 10 measures of *yakt'o* from Yangsan and seven of wood ash plus a small amount of manganese oxide—30 kilograms of the latter sufficing to coat a kilnload of ware. Chang had used lead in his glaze solution (which combined 20 and 10 liters of “rotten” clay and pine ash, plus a quarter liter of manganese oxide and red lead in a 2 : 1 proportion) in large measure to conserve his fuel resources and preserve his kiln, while at the same time satisfying his customers' preference for glossy ware. This produced ware of admittedly lesser quality than that made during his father's day, because the kiln was fired to a substantially lower heat, but was justified by the economics of the situation.

In 1981, no such choice preoccupied Söl Kwan-ju, who, nevertheless, characterized lead-glazed ware as “beautiful.” Fearful of being arrested and having his property confiscated, he had not used the metal for two years, and produced a certificate from the local inspector attesting that his present glaze contained less than 0.1 ppm of the substance. He kept abreast of developments on the lead issue through the Potters' Association, which he said had been formed as a discussion group specifically to deal with the topic.

Once the *chaenmul* solution was thoroughly mixed with a long wooden paddle (*sap*, “spade”) and a scoop (*pagaji*) made from an army helmet, it was applied to the ware by two men working in relay fashion (Figures 113–116). One man immersed and rolled a vessel about in the glazing trough, then upended it momentarily on two planks to let the excess liquid drain back into the vat. A second man did the same. Then, wiping his wet hands on his partner's vessel, he carried it away to the drying yard. The first man immersed a third vessel in the trough, upended it, and carried off the second one. They continued thus until all of the greenware in the yard had been coated. Some years earlier the pair might have added stylized butterflies to the jars (orchids seem not to have been common in this province); local customers eschewed such drawings, however, complaining that they collected dirt. After glazing, a metal scraping tool (*khalggi*) was used to clean the vessel bottoms slightly.

The first kiln at this factory was a *taep'ogul* built by Chang's father the year he arrived in Kūmjang village. In 1966 or 1967, this 40-year-



Figure 113. *Unglazed storage jars at Kūmjang village worksite.* (Photo by Ralph Rinzler, 1981.)

old structure was replaced with a 10-chamber *kaeryanggul* (called by Sōl Kwan-ju *sabal kul*, or “bowl kiln”). The new kiln bore a double stack chimney plus six flue holes through the upper end. During a strong wind, if the kiln was drawing too greatly from the bottom, the six flues were closed off and slabs of clay were removed from the tops of the chimney stacks. Conversely, if the draft was too little, the chimney was sealed, allowing oxygen to pass straight through the flues. Admittedly, this was all very haphazard, but it did permit some control of the firing. Sōl traced the origin of the chamber kiln back some 25 years to a factory owner at Ulsan named Hō Tōk-man. After 1960, this new structure, because of its safety features, became an industry standard. Indeed, only one cannon kiln remained in the area—at Ch’ōngha—in 1981.⁴¹

Sōl’s men loaded the kiln for two days, placing heavy vessels with two or three raised concentric rings on the floor, pieces with the wavy dragon line in the middle layer, and those with an incised shoulder ring on top. The 12- or 13-day firing period was subdivided into *p’iinbul*, *chungbul*, and *k’ūnbul* (or *hambul*) phases of approximately four days each. During the preheating phase, the workers burned only



Figure 114. *Glaze solution being readied in concrete tank.* (Photo by Ralph Rinzler, 1981.)



Figure 115. *Rolling jar in glaze solution.* (Photo by Ralph Rinzler, 1981.)



Figure 116. *Wiping glaze from rim to prevent stacked jars from adhering during firing.* (Photo by Ralph Rinzler, 1981.)

wood; thereafter, they pumped fuel oil from a large tank into the firemouth. Then, during the climax sub-phase (*ch'angbul*), they used a sprinkler to spray it through the chamber vents until an internal temperature of 1200°C was attained. Altogether, they expended three truckloads of construction lumber plus 15 drums of oil at unit costs of 150–200 thousand *wŏn* and 39 thousand *wŏn* (\$214–\$286 and \$56), respectively. (A decade earlier Chang Kyŏng-dae fired his kiln for 8–10 days to just over 1100°C with oil and scrap pine that he purchased from a local sawmill for 35 thousand *wŏn*, or \$88, per truckload. Including the 18 days his potters spent fashioning their kilnload of 7000–8000 vessels—which had an aggregate value of 500 thousand *wŏn*, or \$1250—a complete cycle took about one month.)

After three days of cooling, the ware was unloaded from the kiln and taken away to vendors in Taegu and Pusan. For the moment, Sŏl had little difficulty selling his product; indeed, little ware was stock-piled about the premises when we visited. Without some sort of government intervention, however, he estimated that producers of *onggi* would, in 20 years, be buried under an avalanche of machine-manufactured goods.

Before returning to Seoul, we canvassed Kŭmjang village for



Figure 117. Potter Yi Pok-u with wife, son, and "three-generation" jar brought to Kūmjang village by his grandfather. This grain jar is now in the permanent collections of the National Museum of Natural History, Smithsonian Institution, *Anthropology* cat. no. 423165. (Photo by Ralph Rinzler, 1981.)

suitable examples of the ware, new and old, to take back to Washington, D.C. Among the pieces we were fortunate to acquire was a rice jar (Figure 117) with an especially compelling history. According to its owner, a 52-year-old former potter named Yi Pok-u, the jar had accompanied his grandfather to Kūmjang village in the last century. During the difficult 36 years of Japanese colonial rule, the family had hidden the jar—with their rice supply—beneath their living room floor to keep it from falling into the hands of scavengers. Other villagers had secreted their jars in their courtyards or beneath trees, but the Japanese soldiers usually probed these places with their bayonets. Yi told us he was honored to see his “third generation jar” find a home in the National Museum of Natural History in the United States.

Discussion

Onggi factories in South Korea in 1981 numbered fewer than 250—half the total of 10 years earlier.¹ We can expect that another decade will see an even more precipitous decline in the industry, if not its demise. Competition from machine-manufactured goods has significantly eroded the market for traditional foodwares as have, indirectly, alterations in the domestic unit through family planning, rural-urban migration, and the modern campaign for rural improvement (*Saemaül undong*).

By way of illustration is the example of a Korean man in his mid-30s, now living in Seoul. Born into a large farm family in Chölla Province, he remembers from his early years a courtyard assortment of more than a dozen large water, grain, and sauce receptacles. In his mother's kitchen and an adjoining storeroom were smaller jars for rice, beans, millet, wheat, and winter *kimch'i* plus mixing and stew bowls, an herbal medicine boiler, and a rice steamer. As a married adult living in a rented dwelling in the capital, this same individual now preserves most of his food in a large refrigerator, a Gold Star, which he purchased in 1980 for 240 thousand *wön* (\$300–\$350). His wife prepares *kimch'i* in small quantities and keeps it in metal canisters, either in the refrigerator or in a basement shelter; rice is stored in an aluminum box. The only ceramic vessels about the premises are small soy sauce and red pepper paste jars kept on an outdoor terrace (shared with a neighboring dwelling) and a few seasoning jars on the balcony.²

The producers of *onggi*, to be sure, are well aware of these events. Their response has been to subtract forms from their inventories and to tailor those remaining to an urbanizing clientele. There has been a marked tendency also toward the simplification of embellishments, symptomatic perhaps of an overall lapse in workmanship. Clearly less time is being spent in finish work. The producers credit this change to expediency, but it also reflects an industry in decline.

Approximately half of the proprietors we interviewed were former potters who managed somehow to save or borrow enough cash

to purchase their own businesses. In most cases, these men no longer produced ware, but occupied their time instead supervising the other workers. The remainder were entrepreneurs who, having undertaken the ownership of a factory to generate investment capital, made little pretense that they viewed such exertions as a route to a more esteemed line of work. With one important exception—the Puch'ŏn couple who rather dramatically altered both their production methods and their product—all suffered to varying degrees from economic reverses beyond their making or ability to control. Indeed, two of the 10 factories in the original study sample did not survive the decade.

The workers, for their part, continue to live simple, earnest lives far removed from public view. Although the majority of the potters learned the trade from their forebears and close kinsmen, exceptions to this general pattern suggest other than strict occupational endogamy. Indeed, the insinuation of fugitive Christians into the trade in the eighteenth and nineteenth centuries—coupled with the rise of independent workshops (*chŏmch'ŏn*)—seems to have inhibited the formation of a true caste.³ The well-known “rootlessness” of the *onggi* potters, it bears noting, can also be ascribed to socioeconomic developments of the late Yi dynasty. An arrangement in which workers’ contracts are either renewed or terminated at the conclusion of the busy fall season still encourages this itinerancy.

Not surprisingly, we found the earnings of the potters and their helpers to be fairly modest. In 1972, a wheelman earned an annual wage of around 200 thousand *wŏn* (\$500); by 1981, this figure had risen to two million *wŏn* (\$2857). Taking inflation (which has been several times higher in Korea than in the United States) into account, this increase has not been a substantial one, although it should be balanced against other workers’ entitlements, including free housing, cash loans, and some meals. In exchange, the men work six-day weeks, nine to 11 months out of the year depending on the weather and the press of business. Because of prevailing conditions in the industry in 1981, virtually all of the workers—and owners—desired other careers for their offspring.⁴ At a factory near Chinju, we found the village children absorbed in their favorite television program; at Kaya village, American popular music could be heard in several of the households. It seems likely that many of these young people will join the exodus from the countryside to the population centers of Seoul and Pusan.

The association of *onggi* with an enclaved religious community was a serendipitous discovery, one that did not manifest itself fully

until the 1981 field trip. (No explicit Christian iconography identifies the ware, probably because it was made for a predominantly non-Christian populace.) There is still much to be learned about the history and social organization of the early Christian villages. Non-Christian farming hamlets were composed of segmented patriline, each tracing its ancestry back to a clan of the same surname. Every household in turn was dependent on collateral kinsmen in the local area—an arrangement that Confucianism knitted into a tight web of mutual obligations and responsibilities. The Christian villages almost certainly stood apart from the traditional model inasmuch as membership was not informed by descent and kinship. Whether they were versions of *chōmch'ōn*—or even *ch'ōnmin* (outcaste)—settlements is not yet known.⁵ It is significant perhaps that, world-wide, potters have often been relegated to a position at or near society's lowest rung. In East Asia, this phenomenon may be laid to Confucian prejudices against manual labor; in general, however, potters (like butchers) have been assigned their low social ranking because of their preoccupation with "unclean" substances—in this instance, raw dirt and clay.

On the technical side, the Korean potter's work should greatly interest the ceramics historian inasmuch as it combines (or, one might say, is intermediate between) hand-building and throwing traditions. The first part of the manufacturing procedure—flattening the base and compressing a wall of coils with paddle and anvil—is the hallmark of hand-building, whereas the thinning and refining of this wall with thin, hard ribs and smoothing strips in a fast counter-clockwise direction characterizes wheel-throwing. One who has watched the Korean potter at work will have noticed that he uses very little lubricating slip, except for the water he adds to his tools. Indeed, the point where Western ceramists use the most lubrication, "opening" the ball, is virtually unknown in this tradition.

Even though the modern *onggi* factory resembles markedly its Yi dynasty predecessor, we now know that certain techniques and tools have been altered during the present century. The *subi* clay cleansing operation was introduced to *onggi* potters after 1940 as the quality of available ball clays began to deteriorate; the chamber kiln (*noborigama*) made its first appearance in the 1950s. Because both of these innovations have antecedents among Korean tableware manufacturers, it is tempting to suggest a simple transferral of existing technologies. The particular version of the chamber kiln used by the *onggi* potters, however, appears to have been adopted independently from a Japa-

nese prototype, whereas the clay cleansing may have been taken up at the behest of the Japanese colonial authorities. More recent innovations include the use of mechanical clay processing equipment and improvements to the potters' wheels through the addition of ball bearings.

Glazes pose a special problem in historical reconstruction. Although some ware forms historically lacked such an addition, the likelihood is that a rudimentary ash-and-clay glaze was known to *onggi* potters well back in time. It is the additions of other materials—manganese, iron, and lead oxides—as fluxes and colorants that create the larger mystery.

Only one owner in our sample added iron oxide (as a colorant) to his glaze solution, possibly because red ball clays—which fuse in part with the other glaze constituents—already contain substantial iron. Manganese oxide, on the other hand, was stockpiled at every factory and functioned mainly to deepen or enrich the basic color of the wood-ash glaze; its fusing point was so high that it would have had limited efficacy, either lowering the melting point of the glaze or improving its refractory (heat resistant) qualities. Much current ware, in fact, is an unusually deep shade of translucent brown or even maroon, precisely the effect that a small amount of this substance would produce.

During the Japanese era (1910–1945), lead was used in the bottoms of small vessels which, nested inside larger ones, were shielded somewhat from the full heat of the firing.⁶ Such a precaution ensured that the glaze would reach its maturation point and effectively seal the container. In time the owners came to realize that if they fluxed all of their glazes with powdered red lead, they could lower the overall firing temperature of their kilns, thereby conserving fuel while reducing normal wear and tear on the structures. Whether the owners also recognized lead's liabilities—the risk that workers might absorb the material through their skin or that customers might poison themselves eating food stored in lead-glazed ware—is not known.

It now appears that Korean public health officials were alerted to the potential hazard as early as 1965 or 1966, some time before the controversy broke in the news media. In the ensuing years, efforts were made to monitor the levels of lead in *onggi* glazes, and to propose substitutions. In trials at The Korea Institute of Science and Technology, researchers found that an acidic solution similar to *kimch'i* leached out unacceptable levels of the metal (0.05–24.00 ppm) from glazed

food jars and that such leaching continued as time passed.⁷ A frit glaze was said to produce an acceptable, inexpensive substitute while achieving a suitably glossy ware surface.

At the same time, a law graduate of Kyŏng-hi University confected his own *onggi* glaze containing a mixture of 50 percent clay, 25 percent limestone, and 25 percent borax (boric acid and soda ash in a 2 : 3 proportion). The new glaze, the inventor claimed, retained the reduced temperature and cosmetic advantages of its predecessor without posing any cumulative danger to human digestive and nervous systems. In September of 1971, this man published his findings and began to market his innovation in direct competition with the purveyors of lead. Accusations and threats ensued and, in an ironic parallel to the Potters' Association president mentioned in the preceding section, the inventor spent a period of time in prison. More recently, however, he has won government support for his synthetic glaze as well as a patent of ownership.⁸ Whether he will achieve financial success with his product is problematical, given that most of the potters with whom we spoke were reluctant to experiment with costly and unpredictable new materials. In any event, Korean housewives today tend to beware the tell-tale sheen of lead-glazed ware, reversing the fashion of a decade ago. It is noteworthy that no general epidemiological studies have thus far been undertaken to determine if the population has ingested harmful amounts of the material.⁹

A comprehensive history of the Korean *onggi* industry remains to be written. This report, while shedding light on matters of some moment, does not presume to be a complete accounting of regional differences in factory architecture, in wheelroom techniques, and in nomenclatures. Nor does it provide comparable information on earthenware, drainpipe, and roof tile factories—and on the state of the ceramics industry as a whole in communist North Korea. Even more important, because of time constraints and the survey nature of the project, we were not able to explore in detail contextual aspects of the potters' lives—their life histories, marital patterns, social networks, and oral literature. Despite these admitted shortcomings, we anticipate that this study will foster additional interest in the *onggi* village. Certainly few extant institutions offer such a privileged glimpse into Korea's feudal past.¹⁰

Notes

Complete citations of condensed references are in the Bibliography.

Introduction

1. Refer to Ralph Rinzler and Robert Sayers, "The Meaders Family: North Georgia Potters." *Smithsonian Folklife Studies* No. 1, 1980.
2. The trip is described in Anonymous (probably Zozayong).
3. Robert McC. Adams, "The Natural History of Urbanism." In *The Fitness of Man's Environment*, p. 41. Washington, D.C.: Smithsonian Institution Press, 1968.
4. Paraphrased from a conversation with Alan Lomax circa 1969.

The Onggi Potter

1. The entire subject of *onggi*-related folklore has been neglected in the literature. The following rather cryptic tale, in Im Tong-gwŏn, pp. 77-79, is the exception:

Once upon a time there lived a blind man who was as wretched as a church mouse. One day he sat resting under a tree, daydreaming about his future. An *onggi* peddler, who happened by at this moment, could not contain his curiosity and paused to listen. The blind man, speaking to no one in particular, said, "First I'll buy one egg and hatch it. When it turns

out a pullet, I'll raise it to lay more eggs which I'll also hatch. These in turn will lay more eggs and soon I'll have enough to buy a calf. Then several cows. At length, I'll sell them and build a house and get married. When I become rich enough, I'll get a concubine. But if the first wife and the concubine fight each other, then I'll take the rod to both of them."

As he uttered the last words, the blind man struck out with his cane, hitting the *onggi* pack perched in front of him. At this, the peddler spoke up and angrily demanded to be compensated for his loss. But the blind man demurred, saying, "This is not my fault; I did not do it deliberately. Rather, it was you who left the pack before my sightless eyes without making your presence known to me. I was only contemplating my future life." Presently, another passerby intervened in the dispute. He said to the peddler, "I do not hold the blind man responsible, as he had no idea of the existence of your *onggi* pack in front of him. He did not break your pots willfully. Therefore, the matter is your fault and you have no right to demand compensation." And with that, the matter was finished. (Translation by Kim Joohee.)

2. See, for example, Kim Yöng-mun, 1979, pp. 5–7. Kim sees antecedents for the ware as early as the Three Kingdoms period (1st century B.C.–7th century A.D.).

3. Sö Yu-gu. A general discussion of the subject, including a listing of the various wares, their methods of repair, etc., is found on pages 514–516.

4. Ibid. The term *onggi* (literally, "earthenware vessel") appears on p. 521. (Translations by Robert Buswell, Jr.)

5. Ibid.

6. Ibid.

7. Ibid. One possible rendering of *Jinhua gengdu ji* is "Jottings on Plowing in Jinhua."

8. Ibid. The description almost certainly refers to porcelain jars, underglazed with iron oxide.

9. Ibid.

10. Ibid.

11. Charles Dallet, 1874, pp. CLXXXII–CLXXXIII. (Human Relations Area Files translation.) Dallet may be the source for a similar description in M.A. Poggio, 1895, p. 223:

The artisan, such as the potter or the blacksmith, has no stable residence but wanders instead from one place to another in search of work. Potters especially seek out environs rich in clay and wood, establishing in these places wooden shanties and kilns.

Although [the potter's] work is very primitive, one must credit him with a certain skill or dexterity; one often finds vessels as large as a man in which wheat, rice and water are to be preserved. As soon as they have at last sold all of their ware, the potters seek their fortune in another location. The same holds for the smith who is drawn to a place rich in iron, especially if the iron can be extracted with a minimum of difficulty. (Translation by Robert Sayers.)

12. In August of 1653, the Dutch trading ship *Sperwer*, bound from Taiwan for Nagasaki, was wrecked on Cheju Island off the south coast of Korea, stranding 36 survivors. During their 13-year captivity, the Dutch sailors suffered variously at the hands of provincial officials including one particularly severe governor, who in 1666 had the crew fashioning some sort of ceramic ware. According to chronicler Henrik Hamel: "As soon as install'd, he thought it not enough to use us with all the Severity the banish'd Governour had done, but would oblige us continually to mould Clay, which we refused to do, alledging that his Predecessor had not impos'd any such Labour upon us" ("An Account of the Shipwreck of a Dutch Vessel on the Coast of the Isle of Quelpaert, Together with a Description of the Kingdom of Corea," 1668), reprinted in Gari Ledyard, *The Dutch Come to Korea* (Seoul: Taewon Publishing Co., 1971). It seems unlikely that the captives were making *onggi* because of the skills involved; more probably they were manufacturing bricks or roof tiles.

More than a century later, in 1816, the crews of two British warships, the *Alceste* and the *Lyra*, put in for 10 days of observations on the southwest coast of the peninsula. In Captain Basil Hall's *Account of a Voyage of Discovery to the West Coast of Corea and the Great Loo-choo Island* (London: John Murray, 1818), p. 46, passing mention is made of various food utensils. In the vicinity of a native cottage of mud, stone, and thatch, for example, Hall found heaps of corn and straw, wooden rice mortars, baskets of fishing line, and "a number

of vessels, some filled with water and others with rice." Entering the darkened interior of a kitchen, he encountered a brick fireplace into the top of which was set two "metal boilers." On the wall opposite the cooking stove were shelves containing several round serving tables as well as "a number of cups, basons, and cooking utensils, principally of coarse stone ware, and some few of a sort of bell-metal."

13. P.L. Jouy, 1888, p. 144.

14. On the other hand, if the "small wheels" being described are actually ball bearings, this is a significant detail. Modern wheels generally have bearings on their undersides, although this seems a recent innovation.

15. P.L. Jouy, 1890, p. 591. The embellishments mentioned by Jouy—incised decorations, glaze drawings, fluted and scalloped edges—are still found on modern *onggi*.

16. George W. Gilmore, 1892, p. 219.

17. W.R. Carles, p. 21. William Elliot Griffis, p. 200, also comments on the Korean pottery industry: "The work turned out consists, in the main, of those huge earthen jars for holding water and grains, common to Corean households, and large enough to hold one of the forty thieves of Arabian Nights story." Griffis did not actually travel in Korea until 1926 when he was 83 years old; his descriptive materials derive largely from Japanese sources.

18. Isabella Bird Bishop, vol. I, p. 84.

19. Ibid. Bishop doubtless refers to a type of cooking ware manufactured from a low-firing refractory clay. (See "The Ware.")

20. Ibid., vol. I, pp. 93–94.

21. J. Robert Moose, 1911, pp. 139–140.

22. Ibid., p. 140.

23. Bishop, vol. I, pp. 37–39.

24. Ibid., vol. 11, p. 106.

25. Ibid.

26. Ibid., p. 108.

27. Ibid.

28. Ibid. p. 106.

29. Ibid., pp. 106–107.

30. Moose, p. 147; see also Bishop, vol. 1, p. 22. Daniel L. Gifford in *Everyday Life in Korea* (Chicago: Fleming H. Revell Co., 1898), p. 80, clarifies the situation: "The country has been districted among conveniently placed market towns, in groups of five each, so that once in five days each of these towns had its market day. And peddlers, for the most part belonging to the peddlers' guild, keep traveling around these five-day circuits, carrying their stock of goods, one upon his shoulder, another on an ox, and still another on pony-back."

31. Moose, pp. 147–148. The *onggi* peddler had exotic appeal for foreigners, judging by the number of times his image reappears in the Western literature. See, for example, Bishop, vol. 1, p. 85, and Moose, pp. 135, 146; also James S. Gale, *Korean Sketches* (New York: Fleming H. Revell Co., 1898), facing p. 52; W. Arthur Noble, *Ewa, A Tale of Korea* (New York: Eaton & Maine, 1906), facing p. 82; William W. Chapin, "Glimpses of Korea and China," *The National Geographic Magazine*, 21 (1910), pp. 911, 919; Hermann Lautensach, *Korea: Land, Volk, Schicksal* (Stuttgart: K.F. Koehler, 1950), pl. 2; and Jean Perry, *Chilgoopie the Glad: A Story of Korea and her Children* (London: S.W. Partridge and Co., n.d.), facing p. 72.

32. Moose, p. 148.

33. The evolution of Korea's economic system during the late Yi period is treated in Park Won-son, 1967, pp. 100–113 and in Kim Yong-ho, pp. 1–36. Other sources from which much of this discussion is drawn include Wanne J. Joe, *Traditional Korea: A Cultural History* (Seoul: Chungang University Press, 1972), especially pp. 300–304, 378–389, and *A Handbook of Korea* (Seoul:

Ministry of Culture and Information, 1979, 3rd ed.), pp. 94–125.

34. Park Won-son, pp. 110–113.

35. Dallet, vol. I, p. CXIII. (HRAF translation.)

36. Joe, pp. 81, 145 (see note 33), notes that during the Three Kingdoms period, agricultural serfs, former prisoners of war, and families of rebels and traitors were segregated from the rest of the populace into specialized production villages called *hyang*, *so*, and *pugok*. Their descendants in the Silla and Koryŏ periods (A.D. 668–918 and A.D. 918–1392) produced food, domestic articles, and weapons for the ruling class.

37. Kim Yong-ho, pp. 5–6, states: “The term *chom* was never used in reference to a state-run enterprise . . . *chom* symbolizes that system of independent manual producers who came to produce directly for the domestic market, which was fully developed in the later days of the Yi dynasty.”

38. Kang Man-kil, pp. 71–127. See also G. St. G.M. Gompertz, 1968, and Chŏng Kyu, 1961.

39. Gompertz, p. 22.

40. Kim Yŏng-mun, n.d.

41. Ibid.

42. The early history of Korean Catholicism is summarized in Joe, pp. 410–415 (see note 33).

43. See Bibliography for full citation.

44. Dallet, vol. I, pp. 85–86. (Translation by Robert Sayers.)

45. Ibid., vol. I, p. 199. (Translation by Robert Sayers.)

46. “Lettres du Père d’Entrecolles, Missionnaire de la Compagnie de Jésus,”

dated 1 September 1712 and 25 January 1722. Reprinted in Chu Yen *Chinese Pottery and Porcelain* (Kuala Lumpur: Oxford University Press, 1977; orig. 1910), pp. 181–222.

47. Refer, for example, to Joseph P. Gibbons. The following quotation from Gibbons, p. 188, reflects accurately and with great lucidity modern sentiments about the potters' role in Catholic history:

During the long period of persecutions Catholics, of course, found it necessary to take measures to protect themselves. Many of them withdrew to remote parts of the country where they could practice their religion in relative peace. Realizing that the persecutors were interested mainly in Christian influence among the politically dangerous *yangban* of the opposition factions, Catholic *yangban* often voluntarily gave up their *yangban* status and assumed low-class occupations.

Pottery-making was one of the most popular of these, and many small, remote potters' villages in Korea are Catholic to this day. Potters were lower in the class-structure than commoners, though not as low as butchers. One authority states that potters were regarded as filthy-minded people, whose occupation taught them to think and talk of nothing but clay and sex. So repulsive was their language believed to be, according to the stereotype, that *yangban* would have nothing to do with them, even in the course of enforcing the law. It would be "unthinkable" for high-born, scrupulous Christians to be found among a mob of "filthy" potters; so that was precisely where they sought refuge.

The need for potters to travel widely to market their wares also served as perfect "cover" for religious teachers and messengers, who had to move from place to place to teach doctrine and carry messages for priests in hiding. Furthermore, a potter with a large jar tied to his A-frame was less likely to be stopped for questioning by the police. His identity and business were obvious and his destination unimportant or at least not important enough for the policeman to risk losing face in the stream of abuse which would probably flow from the man's profane tongue if he were questioned. Such was the reputation of the potter.

48. According to Dallet, vol. 1, pp. CX1–CX11, the Christian nobles endeavored ever to maintain their caste privileges, complaining especially over commoners who would masquerade as *yangban* to protect themselves from molestation: "The few Christians who really are of noble race take the thing . . . seriously. They utter bitter complaints over an abuse which is an enormous crime in their eyes." (HRAF translation.)

49. Ibid., vol. I, p. VI: "The Christians were the first in Korea to cultivate mountainous regions. Driven by persecution into remote corners, they cleared land in order not to die of hunger, and a few years' experience taught them the system of cultivation most suited to this type of terrain . . . Tobacco is the principal crop of these elevated places. Millet also succeeds well there, as well as hemp and certain kinds of vegetables . . ." (HRAF translation.)
50. Ibid., vol. I, p. 268. (Translation by Robert Sayers.)
51. Ibid., vol. I, pp. 314–315. (Translation by Robert Sayers.)
52. The French priests included a Msgr. Daveluy, Charles Dallet's principal correspondent who arrived in Korea by Chinese junk in 1845. Daveluy eventually lost his life but not before initiating work on a Korean dictionary and gathering the original documents and letters from which Dallet's book was assembled.
53. Dallet, vol. II, pp. 207–208. (Translation by Robert Sayers.)
54. The compilers of *A Handbook of Korea*, p. 118 (see note 33), note that, despite the political upheavals of the nineteenth century, "Catholicism prospered secretly, nonetheless, especially among the profession of pottery-makers." Important information on the Catholic potters is also found in Douglas Hyde, *One Front Across the World* (London: William Heinemann, Ltd., 1955), pp. 139–146, and in a documentary film, *The Path To Glory*, produced by Desilu Studios, ca. 1960, for the Columban Fathers.
55. Norbert Weber, pp. 193–199. (Translation by Robert Sayers.)
56. Ch'oe Sök-u, n.d. Ch'oe's interest in the history of the Catholic *onggi* potters led him to a tobacco farming and pottery making village in P'aju-gun, Kyönggi Province, where Catholic families had fled during the regency of the Taewön'gun.
57. Kim Yöng-mun, n.d. (Translation by Kim Joohee.)
58. Torii Ryuzō, pp. 213–219.

59. Chōsen Sōtokufu. This 217-page report compiled by Zenshō Eisuke for the Government-General provides invaluable information on all aspects of the Korean ceramics industry during the first quarter of the present century, including numbers and types of workshops, their composition and management, production techniques, raw materials, and marketing systems.

60. Ibid., pp. 9–10. Also reported are figures for producers of sewer pipes, roof tiles, glassware, bricks, and lime.

61. Ibid., pp. 163–168.

62. Ibid., p. 163. (Translation by Louise Cort.)

63. Ibid., pp. 129–135.

64. Ibid. The data for workshops in Hamgyōng Province are taken from pp. 193–212.

65. Bernard Leach, 1975, pp. 110–112.

66. Ibid., p. 111.

67. Sōetsu Yanagi, 1966.

68. Occasional mention of *onggi* is found in the literature subsequent to Korea's liberation from Japanese rule in 1945. See, for example, the following description of a North Korean workshop in V.T. Zaichikov, p. 81: "On the outskirts of cities and in large rural settlements a very common sight near clay quarries is a small pottery oven and a potter's primitive turning-wheel operated by foot. Jugs and pots, widely used in Korean households, are the main items of production. Especially remarkable among objects made by the potters are large jugs, up to 1.5 meters and more in height, used for grain-storage."

The Ware

1. *Ch'ōngja* and *paekcha* (literally, "blue porcelain" and "white porcelain") are the least ambiguous designations for types of Korean ceramic ware. White

porcelain is also called *chagi*, and a crude white ware is *sagi*. Stoneware is *onggi* or *t'ogi*, even though the latter technically means "low-fired earthenware." All kinds of ceramics, taken together, are called *tojagi*, or, in contracted form, *togi*.

2. Tradition has it that General Kim Yu-sin, a seventh century hero who unified the three states of Silla, Koryŏ, and Paekche, always tasted his family's soy sauce before departing for battle to ensure that domestic tranquility would be preserved in his absence. From Yang Ho-il, p. 53.

3. See *A Handbook of Korea*, p. 329 (see note 54, The *Onggi* Potter): "Another dying custom is the taboo string or rope (called *inchul*) hung across the gate post for 21 days. In the case of a baby boy, pieces of charcoal and red peppers are fastened to the string, and in the case of a girl an *inchul* with pieces of charcoal and green pine branches is hung. No visitors, even relatives, are allowed to visit a house with an *inchul* for three weeks."

4. A wide range of storage containers is illustrated in Han Ae-gyu, pp. 18–39. Han's data were collected in the Chŏlla provinces where the typical large and small forms are given as *hangari* and *tanji*, respectively, with *tok* being reserved for a cylindrical salted fish (*chothal*) container. The largest *hangari* is called *tae ong*. Among other storage forms, Han includes *tongi*, *sul hangari* (or *sul pyŏng*), *chŏjaengi* (a specialized jar with a bell-shaped mouth), and *sikh'o hangari* (vinegar *hangari*, a larger version of the *kanjang tanji*). For a similar list, refer to Yi Haeng-jŏng, pp. 62–64.

5. Dragons are common motifs on food storage ware throughout East and Southeast Asia, though are usually represented in a more literal fashion. It is significant that we can now relate the wavy line encircling Korean food jars to this larger iconographic tradition.

6. The various different glaze drawings are described and illustrated in Kim Yŏng-mun, 1979, pp. 45–52, 59–81, and in Yang Ho-il, pp. 53–69. Yang, p. 53, says that such designs assist the potter in checking the thickness of his glaze and the progress of a kiln firing, identify the contents of the jars for the housewife, and also symbolize the sacredness of the *changdoktae* and the protective spirits of family and farm.

7. A useful description of the traditional heating system is found in Ellasue Wagner, *Korea: The Old and the New* (New York: Fleming H. Revell Co., 1931), p. 72. Many Koreans today own Western style cooking ranges and

propane table stoves. Water and gas heating systems in urban apartment complexes, however, still pass beneath paper-covered floors.

8. P.L. Jouy, 1890, p. 591, describes a three-legged earthenware version of the *hwaro* (quotation in The *Onggi* Potter section). The heater is also mentioned in H.B. Drake, *Korea of the Japanese* (New York: Dodd, Mead and Co., 1936), p. 96: "The vendors . . . set up iron braziers, known as *wharros*, where they roast their chestnuts in wire baskets over a charcoal fire, arraying the nuts in little piles of a dozen or so to be sold at a farthing the pile."

9. Dallet, vol. I, pp. CXLVII–CXLVIII. (HRAF translation.)

10. Early Western travelers in Korea often remarked in disgust at the practice of eating dogmeat, a practice that continues today among mostly rural dwellers and urban migrants. In Seoul, many restaurants serve a kind of dog soup called *posint'ang* as a health food.

11. The dictionary gives *koryŏngt'o* as kaolin, although the clay used by these potters is a kind of earthenware body.

12. Chin Sŏng-gi, pp. 45–49. Cheju Islanders, according to Chin, also believe that a housewife should avoid changing hands before the *siru* steams lest she annoy the resident kitchen spirit who will turn the cakes out undercooked. Similarly, she will develop a stooped back by eating the coil of dough placed between the steamer and the steaming kettle. And, finally, a young woman who washes a *siru* after making rice cakes will suffer a heavy menstruation—metaphorically the same as the water flowing through the holes in the steamer's bottom.

13. Han Ae-gyu, pp. 40–41, says a *siru* always has an odd number of bottom holes—five or seven in smaller versions and as many as 13 in larger ones.

14. Bishop, vol. II, p. 97, describes the commercial preparation of ginseng: "Ginseng is steamed for twenty-four hours in large earthen jars over iron pots built into furnaces, and is then partially dried in a room kept at a high temperature by charcoal. The final drying is effected by exposing the roots in elevated flat baskets to the rays of the bright winter sun."

15. Cooking and kitchen forms described by Han Ae-gyu, pp. 40–52, include *siru*, *yak t'anggwān*, *sot*, *chabaegi* or *sorae*, and *haktogi* (a textured bowl for

grinding spices). Yi Haeng-jōng, p. 63, adds homonyms *yak tanji* (for *yak t'anggwan*), *ongbaegi* (for *chabaegi*), and *poch'i* (for *sorae*).

16. During the late feudal period the tables of the royal family and court included, in addition to rice, five different soups and 12 side dishes. By comparison, a nobleman's table had three soups and nine side dishes; a member of the middle class, two soups and seven side dishes; and a commoner, one soup and five side dishes. From Onyang Museum of Ethnology, p. 501.

17. Dallet, vol. 1, p. CLXXVI.

18. Bishop, vol. 1, pp. 86–87. Daniel L. Gifford, in *Every-day Life in Korea* (New York: Charles L. Revell, 1898), p. 52, describes the eating chamber thus: "Here the bowls of crockery or brass are stored in brass-trimmed cupboards and the dining tables are stacked, and here the women, in suitable weather, pass the most of their monotonous existence"

19. Table forms listed in Han Ae-gyu, pp. 46–53, include *ttukpaegi*, *sul pyōng*, and *chongji*. Yi Haeng-jōng, pp. 64, 67, gives two additional bowls: *p'unju* and *sik sorae*. Refer to Walter Hough, 1892, for items of Korean cooking and tableware in the Smithsonian collections.

20. Weber, pp. 375–376. The distilling apparatus (*sojuthori*) is illustrated in several sources, including Han Ae-gyu, p. 45, and William R. Carles, *Life in Korea* (London: McMillan and Co., 1888), p. 256.

21. Also called *oksu pangguri* and *chōng chungbal*. Yi Haeng-jōng, pp. 56–57, calls a similar, though apparently larger, ritual vessel *chindong hangari*. Used in the home, the latter vessel is placed on a ricebox and filled with chestnuts or beans. During shaman rites it contains money or rice and is covered with straw. (See note 42, this section.)

22. Prayers, for example, may be offered at the *changdoktae*, as noted by Han Ae-gyu, p. 62: "The practice of *sonbiri* [literally 'rubbing two hands'] is one of the normal duties of the housewife. After her ablutions, she would offer a bowl of clear water at the *changdoktae* at dawn or midnight, praying in so doing for the welfare of her family and the success of her children." Han concludes: "This practice reflects the sacredness of the *changdoktae* in the folk belief system of Koreans." (Translation by Kim Joohee.)

23. The subject of Korean shamanism now comprises an extensive literature in both Korean and English. Important early Western descriptions can be found in Bishop, vol. 11, pp. 222–254; Gifford, pp. 106–117; Homer B. Hulbert, pp. 403–431, and Charles Allen Clark, pp. 173–219. A sampling of more recent sources would include Kim T'ae-gon, "Components of Korean Shamanism," *Korea Journal*, 12(12)(1972), pp. 17–25; Chong Chu-keun, "Musok—the Shaman Culture of Korea," *Folk Culture of Korea*, edited by Chun Shin-yong (Seoul: International Cultural Foundation, 1974); Lee Jung-Young, 1975, and *Korean Shamanistic Rituals* (The Hague and New York: Mouton, 1981); and Laurel Kendall *Shamans, Housewives and Other Restless Spirits* (Honolulu: University of Hawaii Press, 1985).

24. Lee Jung-Young, 1975, pp. 43–44, says "Shamanism in Korea has been so closely tied to traditional homes that it is not possible to understand the former without the latter. The traditional Korean homes have not only preserved a shamanistic tradition but served as shamanistic sanctuaries. In this respect, Korean shamanism is a religion of homes. Since the homes are the domain of the women, it is also a religion of women." As for the contrasting place of men, Lee, pp. 47–48, adds: "Especially during the Yi dynasty, the man's world was predominantly found through the practice of Confucian rituals rather than shamanistic rituals at home. That is why Confucianism, for example, became a counterpart of shamanism rather than a conflicting belief."

25. *Ibid.*, p. 43.

26. Dallet, vol. I, pp. CXLVI–CXLVII.

27. Lee Jung-Young, 1975, p. 45.

28. Bishop, vol. II, p. 246.

29. Lee Jung-Young, 1975, p. 46.

30. Onyang Museum of Ethnology, p. 352, fig. 590. This reference contains photographs of various ritual vessels (figs. 587–590), a liquor distiller (fig. 228), *onggi*-laden boats (fig. 426), and a cannon kiln (p. 452), plus brief essays on traditional Korean cuisine, customs, and industries.

31. Clark, p. 206.

32. Lee Jung-Young, 1975, p. 46.

33. Ibid., p. 46–47. A second straw-covered hut is sometimes positioned next to the first. It receives a monthly dedication of wine, instead of rice cake, in a rite called *sul kosa* (ritual of wine offering). According to Lee, the repetition of the two rituals at every full moon renews the ground and also “signifies the correlation of the cosmic change to the building ground of a home.”

34. Clark, p. 199. See also *A Handbook of Korea*, pp. 328–329 (see note 33, The *Onggi* Potter): “After childbirth, in order to pray for the blessing of the Birth God, a table with a bowl of clear water and a bowl of rice used to be placed in a corner of the delivery room—a custom from time immemorial, though waning in recent years.”

35. Ibid., p. 202.

36. Bishop, vol. II, p. 247.

37. Ibid., p. 248. The locations of the site god are shown in Onyang Museum of Ethnology, p. 352, figs. 587 and 589. The first illustration shows a thatch-covered jar on a *changdoktae*, the second a barley- or rice-filled *tok* on a dwelling’s wooden veranda.

38. Hulbert, p. 409.

39. Clark, p. 208.

40. Ibid., p. 214.

41. According to Bishop, vol. II, p. 250: “The belief in the efficacy of the performances of the *mu-tang* is enormous. In sickness the very poor half starve themselves and pawn their clothing to pay for her exorcisms . . . The order is said to date back 4000 years, and to have been called in China, where it was under official regulations, *mu-ham*. Five hundred years ago the founder of the present dynasty prohibited *mu-tang* from living within the walls of Seoul—hence their houses and temples are found outside the city walls.” In 1981 it was still common to see white flags outside houses in some districts of Seoul advertising the services of a shaman.

42. Hulbert, pp. 418–419. See also Eleanor King, “The Holy-Unholy Shamans,” *Korean Culture*, 4(4)(1983), pp. 5–16. Describing the actions of a shaman during a mountain spirit rite, King (p. 8) says: “Keeping one foot on the rim of a bowl of water covered with white paper, she circled it, hopping rhythmically. At length she hopped with both feet onto the rim of the bowl, where she balanced on her bare feet; from there she brought messages from the ancestors, the ghosts. To ‘ride on the jar’ successfully is a means of divination called *mulasil t’anda*, or ‘understanding the truth through the water ride’ At this point, the clients were encouraged to bring money to the bowl.”

43. Han Ae-gyu, p. 47, illus. p. 53, gives *ojum changgun* for a round vessel with two handles and a bell-shaped mouth. Yi Haeng-jōng, pp. 64–65, gives other names for urine receptacles including *saeil changgun*, *some changgun*, and *ojum t’ong*.

The *Onggi* Industry: 1971–1981

1. An account of the 1972 trip may be found in Anonymous. In March of 1982, Rinzler made one final trip to Korea to verify information previously collected. (See note 7, this section.)

2. Details of Korean geography and climate are included in *A Handbook of Korea*, pp. 17–28 (see note 33, The *Onggi* Potter).

3. *Ibid.*, p. 16. In the late 1970s, there were 138 *kun* in South Korea encompassing 1344 *myōn*.

4. These figures are based on an exchange rate of approximately 400 *wōn* to the U.S. dollar in 1972 and 700 *wōn* to the dollar in 1981. Although inflation roughly halved the buying power of the dollar during this period, it was far more damaging to the value of the Korean *wōn*.

5. One *mal* equals approximately 18 liters.

6. The substitution of slabs for coils and the absence of the paddle and anvil, we can speculate, was due to the unidirectional (counter-clockwise) rotation

of the small electric wheels. On the kickwheel, coils are normally added and flattened in a clockwise direction with the wheel turning at a slow rate of speed.

7. *The Working Processes of the Korean Folk Potter* (1977), 28 minutes. (Distributed by Oklahoma State University, Stillwater.) In 1982, Ralph Rinzler returned to the Yöngsin factory with a print of Dubois' film. The commentary of one of the local potters while watching the film (as well as the commentary of two factory owners in other locations) is preserved in the Office of Folklife Programs, Smithsonian Institution.

8. In 1981, potters at this factory substituted for the incising awl (*mitkasae*) a question mark-shaped wire gauge that was anchored to the floor next to each wheel; this tool (*padak chönggüm* or *agari chönggüm*) established the bottom disk's correct diameter while simultaneously incising it. Vessel rims were trimmed with horseshoe-shaped rim trimmers (called, like the measuring stick, *chönggümdae*) suspended overhead, instead of the rim awl (*mokkasae*).

9. One *cha* equals 0.33 meters.

10. Both *noborigama* and *taep'ogama* have Japanese cognates: *noborigama* ("climbing kiln") and *teppogama* ("rifle kiln"). Although Japanese colonial authorities undoubtedly introduced many loanwords (e.g., *yüyaku/yuyak*, *temoto/taenmodo*, and possibly *suihi/subi*), Korean potters insist that *kama* is a native term of great antiquity.

11. Chöng and Eddy, 1973c, call the vessels closest to the kiln firebox "fire-blocking pots": "since the flames surging up from the firing chamber are blocked off by these vessels. They also prevent burning wood ashes from rising further into the kiln and protect the vessels behind them from crumbling." (Translation by Kim Joohee.)

12. For a comparable list of ware names, refer to Kim Chin-wu, pp. 25–29. Kim's terms were collected in Kyönggi and the Kyöngsang provinces.

13. See Chöng Myöng-ho and Roger I. Eddy, 1973c. The authors say that the best ashes are from bean husks or burnt grass, but that most potters use pine ashes. *Yakt'o* is described as a combination of processed clay plus iron oxide and organic compounds.

14. Most of the owners interviewed, including Kim Sŏng-soe at the Kŭnjin Factory, felt that oxides of lead and manganese were quite recent introductions to the glaze inventory—certainly no earlier than the Japanese period (1910–1945). Corroboration is found in Chŏng and Eddy, 1973c; in Yang Ho-il, p. 53; and in Kim Yŏng-mun, 1979, pp. 5–7. The latter author notes in a second publication (n.d.): “It is said that up until the Emancipation *kwangmyŏngdan* was used only for ‘*sokki*,’ which was placed innermost at the time of stacking.” (Translation by Kim Joohee.)

15. Before World War II, many thousands of unemployed Koreans emigrated to Manchuria and Japan. Large population shifts continued after 1945 with the partitioning of the country into North and South and again from 1950 to 1953, when about two million Koreans fled communist North Korea for the south.

16. Names for the various classes of *onggi* workers are also given in Chŏng and Eddy, 1973b,c; in Kim Chin-wu, pp. 12–13; and in Yi Haeng-jŏng, p. 12.

17. For discussions of the component architectural features of the *onggi* factory, see Kim Chin-wu, pp. 6–7, and Chŏng and Eddy, 1973a, pp. 47–50.

18. Similar names for clay working tools are given in Kim Chin-wu, pp. 16–19, and in Chŏng and Eddy, 1973b,c.

19. Chŏng and Eddy, 1973b, p. 14, preface a long technical description of the *subi* process with this comment by one of Mr. Sim’s neighbors: “According to Mr. Kim Tong-yun, an *onggi* potter at Sani-ri, Ch’owŏl-myŏn, Kwangju-gun, Kyŏnggi-do, filtering was first adopted by *onggi* potters at Kanghwa-gun, Kyŏnggi Province around 20 years ago and gradually spread to other regions of the province and parts of S. Ch’ungch’ŏng Province.” The same authors (1973a, p. 47) associate *subi* historically with the Silla earthenware industry, Koguryŏ and Paekche tile producers, and the later Koryŏ porcelain industry and conclude: “The main reason for its resumption in *onggi* production was to prevent leakage caused by stones and sand.” (Translations by Kim Joohee.)

20. Similar names (with some additions) for wheel-associated tools are given in Kim Chin-wu, pp. 16–19; in Chŏng and Eddy, 1973c; and in Yi Haeng-jŏng, pp. 21–25, 31–33.

21. Kim Chin-wu says the lid lifter is typically made of arrowroot.

22. For descriptions and illustrations of the different kilns and their component parts, refer to Chŏng and Eddy, 1973a, pp. 50–53; Kim Chin-wu, pp. 68–73; G. St. G.M. Gompertz, pp. 73–75 and plates 1 and 2; and Bernard Leach, 1945, pp. 184–186. An excellent overview of the historical development of East Asian kilns is found in chapter II, Daniel Rhodes, 1981.

23. For a detailed discussion of the *chodaebult'ong kama*, see Chŏng Myŏng-ho, pp. 37–42.

24. Chŏng and Eddy, 1973a, pp. 52–53, cite an owner in S. Kyŏngsang Province as the originator of the chamber kiln: "It is said that this type of kiln was first developed by Mr. Hŏ Tŏk-man around 20 years ago. He was a descendant of porcelain potters in S. Kyŏngsang Province (*Namch'ang-ni, Onyang-myŏn, Ulchu-gun*) and worked as a *taejang* for a while at a porcelain workshop . . . [The design] has since been spread all over the country, and is most widely seen in N. and S. Kyŏngsang Provinces, parts of Kangwŏn Province, and the eastern coastal areas." (Translation by Kim Joohee.)

25. Rhodes, p. 43, calls the chamber kiln "a near perfect design." Control of firing, he says, is more exacting than in the cannon kiln, because each domed chamber acts as its own heat enclosure. Furthermore, the forward wall of pottery in each chamber is arranged so as to deflect the flame and hot gasses upward, then downward through the setting. As the firing proceeds up the slope, the exhaust heat of each chamber is used for warming the next. When the last chamber is reached, little if any additional fuel is required.

26. Prior to the Korean War, according to Sim Sang-un, the largest concentration of *onggi* factories—as many as 36—was at Susan-gun, S. Ch'ungch'ŏng Province. In 1981, the largest concentration was near the port city of Pusan in S. Kyŏngsang Province. Localized demand for jars to preserve marine produce accounted in both instances for the abundance of factories.

27. According to Kim Chin-wu, p. 14: "The relationship between a potter and the kiln is very close. For him the kiln is his religion. Potters describe the firing process as baking the kiln instead of baking *onggi* and nothing is more rewarding for them than firing the kiln. Potters carefully stack the ware in the kiln as if it were their own bodies. From this moment on, potters do the most serious work and behave tidily. In some areas, rites (*kosa*) are performed prior to firing, but the majority of potters are Catholics and do not perform rites." (Translation by Kim Joohee.)

28. In shaman rites, the head of the family is referred to as *p'oju*; hence, *p'oju hangari* freely translates "important jar."

29. *Kosa* refers to the important autumn harvest rite when plates of rice cake with red bean paste or slices of dried pumpkin are placed around the dwelling and on the *changdoktae*.

30. Chu Hak-kyu also added urine to his "rotten" clay; from a technical standpoint, this would change the material's pH factor, rendering greater plasticity to the clay platelets.

31. In 1972, the heaters were called *an pudurae* ("inside movable") and *sutpul* ("charcoal fire").

32. Some of the jars at Changdong village in 1972 had distinctive ridges just below their mouths or small clay bosses affixed to their sides above the handles; these also indicated something about the stacking order.

33. Sim Sang-un at Sani village called this design *sasil tti*, which has no specific translation. He said Chōlla potters attached a separate small coil of clay to the vessel wall to make the raised band, then added the three slashes with their trapezoids. Similar designs are mentioned in Kim Yōng-mun, 1979, p. 34, and in Kim Chin-wu, pp. 62–63.

34. Although we did not see the combined use of slabs and coils at Changdong village in N. Chōlla Province in 1981, nine years earlier the potters there constructed wine crocks using three slabs and eight coils.

35. Mr. Kang's accounting is unclear: he said that if sales were around 80 percent, he made 700 thousand *wōn* in 40 days; if sales were poor, he made 500 thousand *wōn*. Whether this means he paid himself a salary at regular intervals or whether he only took a profit after each kiln firing would make a large difference in his net total.

36. Another possibility is that the widespread use of the chamber kiln spelled better overall control of firing which, in time, diminished the importance of the glaze decorations.

37. Early in the century South Kyōngsang Province was said to possess some of the richest ball clays in Korea—if not in all of East Asia. For a description

of tableware workshops in the vicinity of Mangyang village in 1926, consult Chōsen sōtokufu, pp. 170–179.

38. One *toe* equals one-tenth *mal*, or 1.8 liters.

39. The reference is to Matthew, 27:5–8 (*King James Bible*): “And he cast down the pieces of silver in the temple, and departed, and went and hanged himself. And the chief priest took the silver pieces, and said, It is not lawful for to put them into the treasury, because it is the price of blood. And they took counsel, and bought with them the potter’s field, to bury strangers in. Wherefore that field was called, The field of blood, unto this day.”

40. The reality of the situation may have been far worse, because many Koreans during this period were pressed into brutal servitude.

41. Chōng and Eddy also cite Hō Tōk-man as progenitor. (See note 24, this section.)

Discussion

1. Identical censuses of *onggi* kilnsites are included in Im Ung-guk, p. 23, and in Chi Ung-up, et. al., p. 78. It is not clear whether these represent modern figures or are derived from some earlier source. In any case, the tables account for 7 kilns in Seoul, 65 in Kyōnggi Province, 35 in Kangwōn Province, 24 and 60 in N. and S. Ch’ungch’ōng provinces, 29 and 47 in N. and S. Chōlla provinces, 41 and 88 in N. and S. Kyōngsang provinces, and 4 on Cheju Island, for a total of 400.

2. It is interesting to note that Koreans in the United States normally substitute glass bottles for food storage jars, even though their native cuisine has remained essentially intact. Individuals questioned about this cited the difficulty obtaining the ceramic jars, adding that *onggi* really belongs to the fabric of life in the old country.

3. The average age at which Korean potters begin assembling their skills (17 or 18) contrasts sharply with the starting age for traditional potters in the West; the latter (who flourished in many regions of the United States through the early part of this century) began training as children, possibly because of the complicated motor skills associated with wheel throwing, and therefore

were almost always recruited from the family unit. For comparative purposes, refer to Ralph Rinzler and Robert Sayers (see note 1, Introduction).

4. Most of the potters Kim Chin-wu, pp. 12–14, observed in the 1970s were middle-aged. Our own observations of a decade later generally accord with Kim.

5. Of the Catholic villagers, Gibbons, p. 189, says: “Forbidden from practicing the ancestor rites or the animistic rites which constituted much of the social and cultural life of the average farm village, they lost much of their Korean culture. They had only the imperfectly understood and poorly integrated forms of European Catholicism with which to replace it. They turned inward, venerating their many martyrs with intense devotion. Their neighbors tended to regard them as good people, of high moral principles, but somewhat aloof and uninteresting.”

6. Refer to Kim Yŏng-mun (n.d.). (See note 14, The *Onggi* Industry.)

7. Refer to Chi Ung-up, et. al.

8. Yu Ku-hyŏn and Hwang In-tak, “Kilgŭrŭdyong saengyo chejo pangbŏp” [Patent for the Manufacturing Process of a Natural Glaze], Korean Patent Office, Seoul, dated 3 May 1976.

9. American potters with whom the author has spoken are divided on the danger in using lead in high-fired wood-ash glazes. Small amounts of lead tend to bond with the other glaze constituents and should not leach out in significantly harmful quantities unless the glaze is reheated to its maturation point. On the other hand, the presence of refractory materials in the clay binder could alter this equation. We must, at the same time, bow to the contrary findings of the Korean scientists.

10. Curiosity about the *onggi* village is evidenced in two recent articles in the Korean popular press. The first (Kim Yŏng-gil; see also Onyang Museum of Ethnology, p. 255) details the history and present conditions of a pottery village, *Ponghwang-ni*, in coastal S. Chŏlla Province dating, according to residents, to the Hideyoshi invasions of the late sixteenth century. The second article (Yŏm Ki-yong) focuses in similar fashion on a pottery village, *Sindong-ni*, in N. Kyŏngsang Province. It describes the work of twin brothers No Hyŏn-hwan and No Sang-hwan and also discusses the connection between *onggi* and the Korean Catholic Church.

Appendix A

The Pottery Owners' Association

The membership rolls and bylaws of sister organizations *Chŏn'guk t'ogiŏpcha hyŏphoe* (The Nationwide Association of *T'ogi* Manufacturers) and *Chŏn'guk t'ogiŏpcha ch'inmokhoe* (The Nationwide Friendship Society of *T'ogi* Manufacturers) have been published in a small, informative booklet, dated 20 January 1982. Valuable for the addresses alone—approximately one-fourth of the existing *t'ogi* (*onggi*) factories in South Korea are listed—the booklet also provides useful information on the organizational activities of factory owners. *Chŏn'guk t'ogiŏpcha ch'inmokhoe* is, in fact, a *kye*, or mutual aid society. Such groups provide for the cementing of social relations and the sharing of information, whether on a village level or among members of occupational groups or voluntary associations. Furthermore, the *kye* often functions as a credit union, providing for the rotating disbursement of loan funds to members, where personal bank loans might be expensive or difficult to secure.

In the case of *Chŏn'guk t'ogiŏpcha ch'inmokhoe*, 25 members each pay a monthly 30 thousand *wŏn* (\$43) into the common fund. Twenty percent of the total is set aside for organizational expenses; the remainder is paid out to one member in each succeeding month—the order of receipt being determined by lottery at the outset of the 25-month cycle. While early recipients benefit from advance use of the fund, they are assessed a two percent surcharge on their dues in succeeding months; by contrast, those who take their share toward the end of the cycle receive a substantial amount of interest and are assessed the surcharge only for the months remaining.

In addition to this credit union fund, the association also maintains a food bank to assist members in fulfilling ceremonial obligations. Toward this end, members are assessed three sacks of rice (or the cash equivalent), which are used to underwrite the expense of weddings,

sixtieth birthday celebrations, and funerals. Once again, each factory owner is entitled to draw a single share during the cycle. Additional details are provided in the following translations from the original text.

Words of Encouragement

The golden earth of October affords us ever fresher impressions of Nature's great mysteries.

It is an honor for me to be greeting you. It is especially meaningful for me to work with you, manufacturers who take great pride in your long history and aesthetic traditions, in establishing the Nationwide Association of *T'ogi* Manufacturers. It is also very satisfying to see the publication of this membership list which reflects a shared commitment in fulfilling our responsibilities as pottery manufacturers. You, the members, must endeavor always to uphold our ancestors' standards of courtesy and beauty in order that they are not disgraced, and must further endeavor to produce elegant, standardized receptacles which will not endanger the health of the populace.

Your sharing of opinions has been both thoughtful and sympathetic.

I would like to express my gratitude to you, the members, and to those former presidents who have spared no effort in championing the pottery business. I also thank those who compiled this booklet.

Ch'oe Ki-yŏng, Advisor
October 1981

Statement of Publication

This membership list stems from the formation of a Friendship Society of pottery manufacturers who share both history and tradition.

You, the members, must offer active guidance and encouragement. It is a time of deepening loneliness for the pottery industry. Even your voice is failing due to the icy frost, and we feel unqualified to overcome these difficult times.

We thank the staff of the former presidency and sincerely wish that all of

the members will participate in the Friendship Society with pride and with a cooperative spirit that will make it everlasting. We would like to express our gratitude to all the members who have made the effort to participate despite their own pressing schedules.

Finally, we pray for your everlasting success and happiness.

Yŏn Kyu-sŏk, President

Chŏn'guk t'ogiŏpcha hyŏphoe

Yi Sang-yŏl, President

Chŏn'guk t'ogiŏpcha ch'inmokhoe

20 January 1982

The Nationwide Friendship Society of T'ogi Manufacturers

1. General Regulations of the Friendship Society of T'ogi Manufacturers and Traders, established 3 August 1981

- Article 1: The Society is named the Nationwide Friendship Society of T'ogi Manufacturers.
- Article 2: The goals of the Society are to advance the interests of, and draw endorsements to, the pottery business, to promote friendship, and to strengthen the solidarity of the membership.
- Article 3: Hereafter, membership in the Society is open to those who have won approval of the Board of Directors.
- Article 4: The Society's office is to be located in Seoul.
- Article 5: The Society will hold meetings at 11:00 o'clock on the third day of each month.
- Article 6: The place of meeting and travel instructions will be mailed monthly to the membership. It is the President's duty to notify the membership immediately of any scheduling changes so that the meeting will not be impeded.

2. Organization

- Article 1: The staff of the Society includes a President, a Vice President, a Manager, five Auditors, and several Advisors.

- Article 2: The President is the official representative of the Society and is charged with informing the membership of meetings. The Vice President executes the President's duties by proxy in the latter's absence. The Manager administers the affairs of the Society under the President's directions and takes care of all correspondence as well as the recording of membership dues. The Auditors report on the execution of the Society's budget. The Advisors, who will meet with one another on a frequent basis, are to report on the conditions of the Society and are expected to denounce any wrongdoings.

3. Finances

- Article 1: The staff of the Society will work without pay.
- Article 2: Members of the Society can be named members of the credit union.
- Article 3: Membership dues are 30 thousand *wŏn*.
- Article 4: Twenty percent of membership dues are applied to Friendship Society expenses, while the remainder goes into the credit union account.
- Article 5: Any portion of the 20 percent not expended for food, etc., is replaced in the treasury.
- Article 6: Recipients of credit disbursements are determined by lottery.
- Article 7: The recipient is obligated to pay a surcharge of two percent in addition to his general membership dues.
- Article 8: If a recipient is unable to pay his membership dues, a guarantor must pay the amount on his behalf.
- Article 9: When one leaves the Society without cause, dues paid into the credit union prior to that time are not refunded.
- Article 10: One may apply for a loan when he can provide the names of guarantors. Because of the condition of the Society's fund, loans must be repaid after one month and are charged at an accrued interest rate of three percent per month.
- Article 11: Dues of future members will be used to cover Friendship Meeting expenses.

4. (Conditions of Membership)

- Article 1: The Society assists members on ceremonial occasions. Each member will voluntarily contribute three sacks of government-

priced rice (an individual dividend equivalent to 10 thousand *wŏn*) to the fund. In certain circumstances, a member may offer his contribution personally, insofar as it is of a congratulatory nature.

Article 2: Regulations concerning congratulatory and condolence benefits of three sacks of government-priced rice are as follows:

Clause 1: One may receive a benefit only for the ceremony of an immediate family member over age 20.

Clause 2: Grandparents (even an eldest son) are excluded so long as one's parents are still living.

Clause 3: Upon the death of one's father, one's grandfather qualifies as a member of the immediate family.

Clause 4: Upon the death of a member, his membership may be maintained so long as his family wishes.

Clause 5: In such case, the decedent's family is entitled to a benefit of six sacks of rice. If the family does not wish to continue in the Society, it is entitled to three sacks of rice and is removed from the membership rolls.

Clause 6: Members who do not receive a disbursement during the normal cycle are entitled to their benefit at the end of the cycle.

Clause 7: Members are entitled to a ceremonial disbursement only once. Contributions for a second ceremony are given on a voluntary basis.

Article 3: Automatic dismissal from the Society follows when one fails to attend meetings or pay dues without cause more than three times. Dues previously paid will not be refunded.

Article 4: Failure to attend a meeting excludes one from the lottery, even though his dues are paid by another member.

Article 5: A fine of 10 thousand *wŏn* is levied for failing to attend a meeting or pay dues. Tardiness draws an hourly fine of two thousand *wŏn*.

Article 6: Fines are added to the general fund.

Article 7: Members are advised to adhere to those regulations set forth in order to ensure the preservation of the Friendship Society.

Article 8: Lottery winners who fail to uphold the regulations of the Society will be dismissed from membership in the unanimous name of the remaining members and will be levied a penalty twice the amount of the loan.

5. Gratitude is expressed to members who have willingly offered their cooperation. As a model for others, members must share a promise to preserve

the Friendship Society and unanimously agree to uphold its regulations. Anyone who disobeys the regulations of the Society will suffer automatic dismissal.

Membership Rolls

In the 1982 membership booklet, members are divided between those belonging to *Chŏn'guk t'ogiŏpcha hyŏphoe* and those belonging to *Chŏn'guk t'ogiŏpcha ch'inmokhoe*. Because it is presumed that members of the latter organization also belong to the former, the two lists have been combined.

Sŏul (Seoul):

Kim Chin-ho	Ui-dong, Tobong-gu
Kim T'ae-jin	Sinnae-dong, Tongdaemun-gu
Pae Yo-sŏp	Sinnae-dong, Tongdaemun-gu
Yang T'ae-sik	Hongik-tong, Sŏngdong-gu
Yŏn Kyu-sŏk	Sillim-dong, Kwanak-ku

Kyŏnggi Province:

An In-bae	Kongch'ŏn-dong, Puk-ku, Inch'ŏn
An O-nam	Tamul-li, Yongmun-myŏn, Yangp'yŏng-gun
Chang Yun-jong	Tŏkchŏng-ni, Hoech'ŏn-myŏn, Yangju-gun
Chang Sang-wŏn	Hwasal-li, Idong-myŏn, Yongin-gun
Ch'oe Ki-yŏng	Kyŏngsŏ-dong, Puk-ku, Inch'ŏn
Ch'oe Yŏng-ha	Yangbong-ni, Pogae-myŏn, Ansŏng-gun
Chŏng Chin-ok	Saam-ni, Wŏnsam-myŏn, Yongin-gun
Chŏng Pyŏng-hwa	Chŏn'gong-ni, Chŏn'gong-myŏn, Yŏnch'ŏn-gun
Hong Sun-p'yo	Tangha-ri, Pongdam-myŏn, Hwasŏng-gun
Im Sang-dŭk	Sani-ri, Ch'owŏl-myŏn, Kwangju-gun
Kim Chin-hwan	Tangha-ri, Pongdam-myŏn, Hwasŏng-gun
Kim Ki-sŏk	Not'am-ni, Changhowŏn-ŭp, Ich'ŏn-gun
Kim Nam-su	Kŏnji-ri, Taedŏk-myŏn, Ansŏng-gun
Pak Chong-ch'ŏl	Obi-ri, Idong-myŏn, Yongin-gun
Sim Sang-un	Sani-ri, Ch'owŏl-myŏn, Kwangju-gun
Sŏ Pong-sŏn	Nae-ri, Kap'yŏng-myŏn, Kap'yŏng-gun
Yang Ch'an	Talchŏl-li, Kap'yŏng-myŏn, Kap'yŏng-gun
Yi Chong-su	Sani-ri, Ch'owŏl-myŏn, Kwangju-gun
Yi Kyŏng-ho	Kajae-ri, P'alt'an-myŏn, Hwasŏng-gun

Yu Il-sŏng	Talchŏl-li, Kap'yŏng-myŏn, Kap'yŏng-gun
Yuk Chŏng-gu	Saam-ni, Wŏnsam-myŏn, Yongin-gun
Yun Chong-yŏl	Not'am-ni, Changhowŏn-ŭp, Ich'ŏn-gun

Kangwŏn Province:

Pak T'ae-hwan	Songjŏng-ni, Hwach'ŏn-myŏn, Hongch'ŏn-gun
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North Ch'ungch'ŏng Province:

Ch'oe Kil-dong	Hyŏl-li, Annae-myŏn, Okch'ŏn-gun
Kwŏn T'ae-gyu	Osŏng-dong, Ŭmsŏng-ŭp, Ŭmsŏng-gun
Yŏ Pyŏng-hwan	Ch'ujŏng-ni, T'angsŏng-myŏn, Ch'ŏngwŏn-gun
Yŏm Sŭng-ŏn	Kŭmnŭng-dong, Ch'ungju

South Ch'ungch'ŏng Province:

Chang Hŭng-sun	Tanggong-ni, Pongsan-myŏn, Yesan-gun
Chŏn Ch'ang-ju	Och'ŏl-li, Oga-myŏn, Yesan-gun
Chŏng Wŏn-sun	Usil-li, Sŏnghwan-myŏn, Ch'ŏnwŏn-gun
Chu Hak-kyu	Yongdam-ni, Kŭmnam-myŏn, Yŏn'gi-gun
Han Ki-man	Sinwŏl-li, Ch'ŏnga-myŏn, Kimje-gun
Han Kŏn-sin	Sinyŏwŏl-li, Yesan-ŭp, Yesan-gun
Im Sun-ye	Sin'gal-li, Sapkyo-myŏn, Yesan-gun
Kim Hae-dong	Naech'ŏl-li, Chŏngan-myŏn, Kongju-gun
Kim Tong-gyun	Changsalsi, Susin-myŏn, Ch'ŏnwŏn-gun
Pak Pong-yun	Yu-ri, Ipchang-myŏn, Ch'ŏnwŏn-gun
Sŏ Hyŏng-sik	Konae-ri, Yŏnmu-ŭp, Nonsan-gun
Son Hae-dong	Konae-ri, Yŏnmu-ŭp, Nonsan-gun
Yi Ch'un-an	Ŭbnae-ri, Tŏksan-myŏn, Yesan-gun
Yi Kŭm-san	Nop'yŏng-ni, Pibong-myŏn, Ch'ŏngyang-gun
Yi Kŭm-san	Usil-li, Sŏnghwan-myŏn, Ch'ŏnwŏn-gun
Yi Sang-yŏl	Yesan-ŭp, Yesan-gun
Yu Chi-p'yo	Yu-ri, Ipchang-myŏn, Ch'ŏnwŏn-gun

North Kyŏngsang Province:

Chang Ki-hae	Kŭmjang-ni, Hyŏn'gong-myŏn, Wŏlsŏng-gun
Mun T'ae-gon	Myŏngan-ni, Ch'ŏnga-myŏn, Yŏngil-gun
Sŏ Ki-sŏn	Pulguk-tong, Kyŏngju
Sŏl Kwan-ju	Kŭmjang-ni, Hyŏn'gong-myŏn, Wŏlsŏng-gun

South Kyŏngsang Province:

Ch'oe Sang-il	Kyosal-li, Onyang-myŏn, Ulchu-gun
Pae Yŏng-ha	Kyosal-li, Onyang-myŏn, Ulchu-gun
Yi Sang-bok	Mangyang-ni, Onyang-myŏn, Ulchu-gun

Appendix B

Clay Analyses

John W. Hosterman
United States Geological Survey

The following tables give the mineralogical composition of ball and glaze clays collected in 1981 at five South Korean *onggi* factories (see Figure 29 for corresponding locations). Size-fraction values are indicated as follows: sand (0.0625–2.0000 mm), silt (0.0039–0.0625 mm), and clay (<0.0039 mm). Most of the samples, in fact, can be characterized as “clayey silt,” several are “silty clay,” and only one (with 76% clay fraction) is “clay.”

Types, or phases, of clay and non-clay minerals (1–5 and 6–13, respectively) identified by x-ray diffraction and optical microscope include the following:

1. chlorite $(\text{OH})_4(\text{SiAl})_8(\text{MgFe})_6\text{O}_{20}$
2. illite $(\text{OH})_4\text{K}_2(\text{Si}_6\text{Al}_2)\text{Al}_7\text{O}_{20}$
3. smectite $(\text{OH})_4\text{Si}_8(\text{Al}_{3.34}\cdot\text{Mg}_{0.66})\text{O}_{20}\cdot n\text{H}_2\text{O}$
4. mixed layer clay (interlayer mixture of illite and smectite)
5. kaolinite $(\text{OH})_8\text{Si}_4\text{Al}_4\text{O}_{10}$
6. quartz SiO_2
7. plagioclase $\text{NaAlSi}_3\text{O}_8$
8. muscovite $\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH})_2$
9. biotite $\text{K}(\text{Fe},\text{Mg})_3\text{AlSi}_3\text{O}_{10}(\text{OH})_2$
10. magnetite Fe_3O_4
11. hematite Fe_2O_3
12. limonite $2\text{Fe}_2\text{O}_3\cdot 3\text{H}_2\text{O}$
13. rock fragments

Table 1. *Ball clays* (tr = present in amounts <1%; x = present in amounts 1%–10%; xx = present in amounts >10%).

Origin of ball clays	Size- fraction ¹			Clay minerals ²				Non-clay minerals							
	Sand	Silt	Clay	Illite	Smectite	Mixed layer clay ³	Kaolinite	Quartz	Plagioclase	Muscovite	Biotite	Magnetite	Hematite	Limonite	Rock fragments
Factory 3															
Iksan	4	58	38	1.5	–	5.0 (52.5)	3.5	xx	x	x			tr	tr	
Haptok	3	57	40	0.5	2.5	1.0 (56.0)	6.0	xx	xx						
Choch'iwön	1	57	42	0.5	tr	2.5 (47.5)	7.0	xx	x	x		tr	tr	tr	
Sönghwan	16	36	48	0.5	0.5	4.0 (47.5)	5.0	xx	xx	x					
Factory 4															
Ansöng or Yesan	3	41	56	tr	tr	3.5 (47.5)	6.5	xx	x	tr	tr	tr			
"	3	50	47	0.5	2.5	4.5 (47.5)	2.5	xx	tr	tr	tr	tr	tr	tr	tr
"	tr	42	58	2.0	–	3.0 (80.0)	5.0	xx	tr	tr	tr		tr		
"	10	40	50	1.0	–	3.0 (51.6)	6.0	xx	tr	tr	tr				tr
Factory 6															
Iksan	2	46	52	0.5	–	2.5 (47.5)	7.0	xx	x	tr					
Pöun	1	42	57	0.5	–	3.0 (43.3)	6.5	xx	tr	tr	tr			tr	tr
Factory 9															
Sanch'öng	26	41	33	0.5	–	2.0 (47.5)	7.5	xx	tr	tr	tr				
Sach'ön	7	47	46	1.0	–	4.0 (22.9)	5.0	xx	tr	tr	tr				
Factory 10															
Angang	5	66	29	0.5	6.5	–	3.0	xx	tr	tr					
Yöngch'ön	tr	24	76	1.0	1.0	5.0 (48.6)	3.0	xx	tr	tr					
Pönp'o	7	63	30	1.5	3.0	–	5.5	xx	x	tr					tr
Ulsan	4	52	44	0.5	–	4.5 (15.5)	5.0	xx	tr	tr	tr				

¹ Expressed as percent by weight.

² Expressed as a ratio, in parts per 10, of the clay fraction.

³ Value in parentheses indicates percent of illite layers to smectite layers.

Table 2. *Glaze clays* (tr = present in amounts <1%; x = present in amounts 1%–10%; xx = present in amounts >10%).

Origin of glaze clays	Size- fraction ¹			Clay minerals ²				Non-clay minerals							
	<i>Sand</i>	<i>Silt</i>	<i>Clay</i>	<i>Chlorite</i>	<i>Illite</i>	<i>Smectite</i>	<i>Kaolinite</i>	<i>Quartz</i>	<i>Plagioclase</i>	<i>Muscovite</i>	<i>Biotite</i>	<i>Magnetite</i>	<i>Hematite</i>	<i>Limonite</i>	<i>Rock fragments</i>
<i>Factory 3</i>															
Kap'yōng	6	58	36	5.0	2.0	3.0	–	xx	x	tr		tr	tr	tr	
<i>Factory 4</i>															
Yangsan	23	54	23	8.0	1.0	1.0	–	xx	x	x		tr	tr	tr	
or local															
"	19	45	36	4.5	5.0	0.5	–	xx		x	tr	tr	tr	tr	tr
<i>Factory 6</i>															
Yangsan	10	58	32	4.5	1.5	4.0	–	xx	tr	tr	tr			tr	tr
<i>Factory 9</i>															
Yangsan	35	49	16	–	1.0	4.0	5.0	xx	xx	tr			tr	tr	tr
<i>Factory 10</i>															
Yangsan	25	59	16	0.5	0.5	2.5	6.5	xx	x					tr	tr

¹ Expressed as percent by weight.

² Expressed as a ratio, in parts per 10, of clay fraction.

The suite of accessory minerals (9–13) indicates a stream deposit or alluvial origin for the samples.

The refractory (heat resistant) properties of the samples are controlled primarily by the clay minerals, especially those that contain the alkali elements pyrolusite, lithophorite, and plagioclase. Chlorite, illite, and smectite have fusion temperatures that are, by comparison, much lower, while quartz has no refractory properties but helps control shrinkage. Kaolinite, which contains no alkalis, has the highest fusion temperature of the clay minerals and, significantly, does not occur in four of the six glaze clays where low fusion is desired.

Bibliography

- Anonymous. "A Tour of Korea's Kilns." In *Minhak*, 2. Seoul: Emille Museum, 1973.
- Bishop, Isabella Bird. *Korea and Her Neighbours: A Narrative of Travel with an Account of the Recent Vicissitudes and Present Conditions*. Two volumes. London: John Murray, 1905 [originally published in 1898].
- Carles, William R. *Report of a Journey by Mr. Carles in the North of Corea, Presented in the British Parliament, in April 1885*. London: Harrison and Sons, 1885.
- Carrico, Gerald. "A Korean Pottery." *Ceramics Monthly*, 21(6):29–36, 1973.
- Chi, Ung-up, Yi Chun, An Su-i, and Yang Chae-hyŏn. "Onggiryu esŏ yŏngch'uldoinŭn naptokpun e taehan silt'aejosa mit kŭ taech'aek kumyŏng" [Investigation of Lead Content Leached from *Onggi* Glazes with Recommendations for the Preparation of a Leadless Frit]. *Han'guk yoŏp hoiji*, 9(1):77–83, 1972.
- Chin, Sŏng-gi. "Cheju minsok ũi mŏt" [Charm of Cheju Folklore]. In *Misul mungo*, 60:45–49. Seoul: Yŏlhwadang Publishing Co., 1981.
- Ch'oe, Sŏk-u. "Kalgong-ni kongso rŭl ch'ajasŏ" [In Search of Kalgong Village Workshop]. In *Han'guk Ch'ŏnjugyohoi hakpo*, 5. Seoul, n.d.
- Chŏng, Kyu. "Punwŏn chubyŏn ũi minyo" [Private Kilnsites around Punwŏn]. In *Misul charyo*, 4:11–13. Seoul: National Museum of Korea, 1961.
- Chŏng, Myŏng-ho. "Hongsŏng Kalsan-myŏn Tongsŏng-ni onggijŏm chosa" [A Field Study of *Onggi* Workshops at Tongsŏng Village, Kalsan-myŏn, Hongsŏng-gun]. *Kogo misul*, 106/107:37–42, 1970.
- , and Eddy, Roger I. "Han'guk ũi onggijŏm: Onggijŏm sisŏl ũl chungsim ũro" [*Onggi* Workshops in Korea: Emphasizing Facilities]. *Munhwajae*, 17:41–53, 1973a.
- , and Eddy, Roger I. "Han'guk onggijŏm ũi chagŏp kwajŏng e taehayŏ" [Manufacturing Procedures at *Onggi* Workshops in Korea]. *Kogo misul*, 119:8–17, 1973b, and 120:11–21, 1973c.
- Chŏsen sŏtokufu [Japanese Government-General of Chŏsen]. *Chŏsen no yŏgyŏ* [Ceramic Industry of Korea]. Documents Division, Investigative Report, 18: 222 pages, 1926.
- Clark, Charles Allen. *Religions of Old Korea*. New York: Charles L. Revell, 1932 [reprinted 1961].

- Dallet, Charles. *Histoire de l'Église de Corée*. Two volumes. Paris: Victor Palmé, 1874. [Introduction reprinted in English as *Traditional Korea*, New Haven: Human Relations Area Files, 1954.]
- DuBois, Ron. "The *Onggi* Potters of Korea." *Studio Potter*, 8(1):70-75, 1970.
- Gibbons, Joseph P. "Catholicism." In Yi Kyu-tae, editor, *Modern Transformation of Korea*, pages 185-193. Seoul: Sejong Publishing Co., 1970.
- Gilmore, George W. *Korea from its Capital: With a Chapter on Missions*. Philadelphia: Presbyterian Board of Publications and Sabbath-School Work, 1892.
- Gompertz, Godfrey St. George M. "A Trip through Southern Korea." In *Transactions of the Oriental Ceramic Society 1964-65/1965-66*, pages 1-20. London: Lousdale & Bartolomew, 1967.
- . *Korean Pottery and Porcelain of the Yi Period*. London: Faber and Faber, 1968.
- Griffis, William Elliot. *Corea: The Hermit Nation*. New York: Charles Scribner's Sons, 1894 [originally published in 1882].
- Han, Ae-gyu. "Onggi ūi chohyōngsōng e taehan yōn'gu" [A Study of *Onggi* Forms]. 74 pages, 77 photos and line illustrations. Masters thesis, Department of Applied Arts, Seoul National University, 1980.
- Hough, Walter. "The Bernadou, Allen, and Jouy Collections in the U.S. National Museum." In *Report of the U.S. National Museum for the Year Ending June 30, 1891*, pages 429-488. Washington, D.C.: Government Printing Office, 1892.
- Hulbert, Homer B. *The Passing of Korea*. New York: Doubleday Page, 1906.
- Im, Tong-gwōn, editor. "Onggichim ūl nōmōddūrin changnim" [A Blind Man Who Broke the *Onggi* Pack]. In *Han'guk ūi mindam*, pages 77-79. Seoul: Somundang Publishing Co., 1973.
- Im, Ung-guk. "Han'guk ūi onggi kongōp" [*Onggi* Industry in Korea]. *Han'guk yoōp hoiji*, 8(2):20-29, 1972.
- Jouy, Pierre Louis. "The Corean Potter's Wheel." *Science*, 12(294):144, 1888. [Reprinted in Jouy, 1890:591; in Hough, 1892:435; and in Gompertz, 1968:76.]
- . "The Collection of Korean Mortuary Pottery in the U.S. National Museum." In *Report of the U.S. National Museum for the Year Ending June 30, 1888*, pages 589-596 + plates. Washington, D.C.: Government Printing Office, 1890.
- Kang, Man-kil. "A Study of the Punwōn." *Transactions of the Royal Asiatic Society, Korea Branch*, 44:71-127, 1968.
- Kim, Chin-wu. "Han'guk onggi kongbang ūi silt'ae yōn'gu: Chaejakbibōp, yongō rŭl chungsim hayō" [A Study of Conditions in Korean *Onggi* Workshops: Emphasizing Terminology and Methodology]. 85 pages plus 116 photos and line illustrations. Master's thesis, Department of Craft Design, Hongik University, Seoul, 1972.
- Kim, Yōng-gil. "Chōllae ūi mat tamuryō chōmt'o soke sanūn maūl" [A Clay

- Workshop Village Trying to Preserve the Traditional Taste]. In *Segye*, September 1981.
- Kim, Yong-ho. "The Manual Industries Prior to Korea's Opening." *Journal of Social Sciences and Humanities*, 39:1-36. Seoul: Korean Research Center, 1974.
- Kim, Yöng-mun. "Onggi munyang yön'gu" [A Study of *Onggi* Design]. 86 pages, 138 photos. Master's thesis, Department of Pottery Craft Art, Tanguk University, Seoul, 1979.
- . "Onggi munyang e kkich'in Ch'önjugyo üi yönghyang" [Catholic Influence on *Onggi* Designs]. In *Han'guk Ch'önjugyo hoibo*, page 3. Summary of the 31st Monthly Conference, Seoul, n.d.
- Leach, Bernard. *A Potter's Book*. Pages 184-186. London: Faber and Faber, 1945 [originally published in 1940; reprinted in Gompertz, 1968:74-75].
- . *Hamada: Potter*. Pages 110-112. New York: Kodansha International, Ltd., 1975.
- Lee, Jung-Young. "Shamanistic Thought and Traditional Korean Homes." *Korea Journal*, 15(11):43-51, 1975.
- Moose, J. Robert. *Village Life in Korea*. Nashville: Publishing House of the M.E. Church, South, 1911.
- Onyang Museum of Ethnology. *The Folkcrafts of Korea*. Seoul: Kyemongsa, 1980.
- Park, Won-son. "The Merchant System Peculiar to Korea." *Journal of Social Sciences and Humanities*, 26:100-113. Seoul: Korean Research Center, 1967.
- Pogio, M.A. *Korea*. Wien and Leipzig: Wilhelm Braumuller, 1895 [originally published in Russian, 1892].
- Rhodes, Daniel. *Kilns: Design, Construction and Operation*. 2nd edition. Radnor, Pennsylvania: Chilton Book Co., 1981.
- Sayers, Robert. "Rediscovering Korea's *Onggi* Potters." In *Festival of American Folklife 1982* (program book), pages 42-44. Washington, D.C.: Smithsonian Institution, 1982.
- . "Potters and Christians: New Light on Korea's First Catholics." *Korean Culture*, 6(2):26-35, 1985.
- Sö, Yu-gu. *Imwön kyöngje simnyuk chi* [Sixteen Discourses on Rural Economy]. Seoul National University, 1967 [originally published in 1834].
- Torii, Ryuzö. "Chösen no doki zukuri" [Earthenware-making in Korea]. *Jinruigaku zasshi*, 32(364):213-219, 1917.
- Weber, Norbert. *Im Lande der Morgenstille*. Berlin: Herdersche Verlags-handlung, 1915.
- Yanagi, Söetsu. "The Mystery of Beauty: A Tribute to the Korean Craftsman." Helena, Montana: The Archie Bray Foundation, 1966 [originally published in 1952]. [Reprinted in *Far Eastern Ceramic Bulletin* 9(3/4):7-9, 1957.]

- Yang, Ho-il. "Onggi munyang ūi haesök" [Description of Pottery Designs]. *Konggan*, 141:53–69. Seoul: Konggansa Publishing Co., 1979.
- Yi, Haeng-jöng. "Chosönjo rül chungsim ūro han tojagongye yongö ūi koch'al" [A Study of Yi Dynasty Pottery Craft Terms]. 96 pages plus approximately 100 line illustrations. Master's thesis, Department of Craft Design, Hongik University, Seoul, 1977.
- Yöm, Ki-yong. "Ssangdongi togong ūi onggi sinang" [Twin Potters' Devotion to *Onggi*]. In *Wölga Chosön* (magazine supplement to *Chosön ilbo*), pages 566–574, July 1985.
- Zaichikov, V.T. *Geography of Korea*. New York: Institute of Pacific Relations, 1952 [originally published in Russian, 1947].

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